





Darwin Initiative Main: Annual 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: 30th April 2024

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Darwin Initiative Project Information

Project reference	29-014		
Project title	Improving Community Sustainable Natural Resource Management of Mount Mulanje		
Country/ies	Malawi		
Lead Partner	Botanic Gardens Conservation International (BGCI)		
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 March 2025		
Reporting period (e.g. Apr 2023 – Mar 2024) and number (e.g. Annual Report 1, 2, 3)	April 2023 – Mar 2024 Annual Report 2		
Project Leader name	Alex		
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	Kate , Linda , Alex , Jones , Bryony & Richard		

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 km² 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 aims 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 will focus on 20 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 Annexes 4 and 5), that have a remit to be sustainably managed for biodiversity and people (see figure 1). The project partners will work with businesses and local communities to access markets for native plant and fungi products, including through FairWild certification.

A community co-operative and a social enterprise will be established and supported to manage market opportunities, and degraded, co-managed land will be restored by replenishing overexploited economic species.

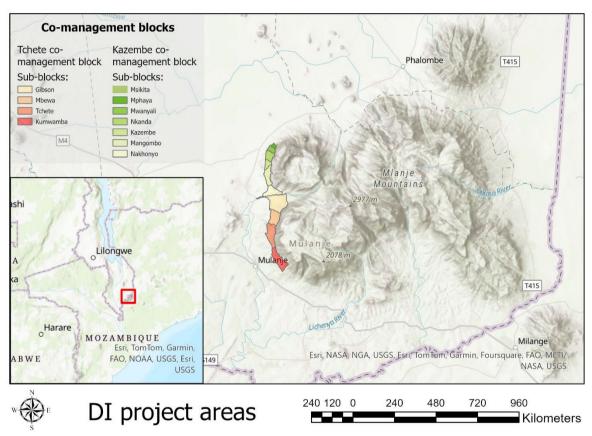


Figure 1: Map of Mulanje and the 2 co-management blocks (and their sub-blocks) within which project activities are taking place.

2. Project stakeholders/ partners

A steering committee, meeting every 6 months, guides the project (see section 3.1 activity 1.1). Separate management meetings, including Forest Sector meetings (now Forestry Resource Platform), are also held on a regular basis between the main project partners: BGCI, MMCT, WeForest and FairWild (See Annex 6 for example minutes). Partners also work collaboratively through working groups focused on different project components, including a restoration group (See example minutes in Annex 7) and an education group (see example minutes in Annex 8). 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.

Aligning partners work schedules remains a challenge, however these various meeting platforms have improved this.

FairWild have provided support this year through various experts:

1. Cathy Sharpe – miombo mycologist who works with community harvesting groups in Zimbabwe did the fungi risk assessment (see section 3 – activities 2.1 and 2.3)

- 2. Luke Heller Business Development Associate, supported business development.
- 3. Dr Valdon Smith Senior Technical Adviser, certification expert and regular consultant for FairWild Foundation certification assessments
- 4. 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 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 9 and 10).

Project partner MMCT have been in communication with three further experts regarding fungi and business developments:

- Professor Paul Thomas from Mycorrhizal Systems Ltd to support with chanterelle inoculation trials (see Annex 11)
- Caroline Jacquet from Bio-Innovation Zimbabwe (BIZ) to advise on product development (e.g. recipes and value-addition trials); Cost-Benefit analysis of NTFPs; collector group constitutions, sustainable collection guidelines and Business Plans.
- Owen Martin-Jones, Director of Mayankho Community, Mulanje to support business developments of vulnerable women to be trained during the project activities and who wish to start a business (See section 3.2 Output 3 Measurable Indicator – MI – 3.4).

A team of restoration experts from BGCI's network - 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 Malawi University of Science and Technology (MUST) (see section 3 Output 5 activity 5.5).

WeForest have developed an MoU with the Department of Forestry to be signed in 2024. WeForest have also signed five-year MoUs with MUST to facilitate long term ecological data collection (see section 3.1 activity 5.5) and the Wildlife and Environment Society of Malawi (WESM) to promote environmental education in the landscape both in schools and communities (see section 3.1 activity 3.8). WeForest has also 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 activity 3.2).

3. Project progress

3.1 Progress in carrying out project Activities

Activity 1.1: The steering committee met twice in the year; October 2023 and March 2024 to discuss progress and suggest respective actions (see Annexes 12 and 13).

Activity 1.4 & 1.5: A Species Selection Workshop (online and in person) was held on 4th July 2023 with attendees from MMCT (3), WeForest (3), BGCI (1), a local communities' representative (1), FairWild (1), FRIM (1), and Kadale Consultants (2).

With species information compiled on twelve potential species (see Annex 14) the workshop group used a selection matrix to score each using three criteria:

- 1. Known level of demand
- 2. Potential level of demand once processed/value-added.
- 3. Current volumes available for supply.

Information from the Kadale Market Assessment report (See Annex 15), and the Village Focus Group Discussions report, and literature reviews, were used to guide the scoring. A total score was calculated from the criteria to inform the five species with the highest potential for development and commercialisation to support sustainable livelihoods (See Annex 16).

The species prioritised were:

- Uapaca kirkiana
- Syzygium cordatum
- Flacourtia indica
- Parinari curatellifolia
- Chanterelle mushrooms (a complex of potentially 3 different species Cantharellus platyphyllus, C. miomboensis and C. congolensis)

When assessing the resources in the field (activity 2.4), *S. cordatum*, was found to have low productivity (see section 8). The project management team agreed to replace this with the more abundant *Garcinia buchananii* – large trees found near rivers and streams that fruit abundantly and have potential of dried fruit powders, cordials, and tea flavouring (see activity 2.2).

Activity 2.1: Risk classification of the four initially prioritised plant species were delivered in collaboration with FairWild Foundation's IUCN Medicinal Plant Specialist Group (MPSG) partners by September 2023 (see Annex 17). All four species were classified as "low risk" of unsustainable harvesting pressure. Following the replacement of *S. cordatum* an additional risk classification of *G. buchananii* was completed in March 2023, also low risk (see Annex 18).

The fungi risk assessment methodology was finalised in December 2023 after review by experts from FairWild's fungi technical working group – Dr. Gregory Mueller (Chair of the IUCN/SSC Fungi Conservation Committee) and Dr. Danna Leaman (Co-Chair of the IUCN/SSC MPSG) (see Annex 19). An initial risk analysis of Chanterelle fungi species observed in the field was completed by Cathy Sharp, classified as medium risk (see Annex 20). A risk map was developed with support of Luke Heller (see Annex 21) in February 2024.

Activity 2.2: 'Harvesting trials'

A total of 679kgs of fruit and nuts were purchased during this period (see figure 2), at a value of 783,050 Malawian Kwacha (£357 using exchange rate on https://www.oanda.com/ on 26 April 2024). Most of the purchases were for *P. curatellifolia* and *F. indica* (292kgs) – See table 3.

Table 3: Details on the harvest trials of the selected target species for the project

Species	Time of year harvested	Amount purchased (Kg)	Price per Kg (Malawi Kwacha - MK)	Total income (MK)	Number of harvesters (women)
Uapaca kirkiana*	November - January	0.3	1,800	0	0 (no fruit available)
Parinari curatellifolia	Sept – Nov May - June	166kg Grade A 179kg Grade B	1,000 700	291,300	25 (17)
Parinari curatellifolia nuts	Oct – Feb June - Aug	3.5kg Whole nuts 1.5kg broken nuts	6,000 4,500	27,750	10 (10)
Flacourtia indica	Mid-Jan – Early March	292kg	2,000	393,500	25 (11)
Garcinia buchanannii	Dec - Feb	35.3kg	2,000	70,500	7 (2)
Chanterelles	Jan - Mar	0.908kg	3,500	0	0 (poor fungi season)
Total		678.508		783,050	56 (32) *

^{*} Some men and women collected more than one thing, so the totals are not additions of all the numbers above in the number of harvesters column

This year, *Uapaca kirkiana*, usually a very high yielding species, flowered but did not produce fruit, an unusual occurrence. Fruits were bought from roadside markets supplied outside of Mulanje for product development investigations. For Chanterelles, less than 1kg was collected during fieldwork because it has been a dry year and so no sales were made. Climate issues of El Niño and Cyclone Freddie could have contributed to these poor harvests.



Figure 2: 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]

Activity 2.3: A sustainable collection guidelines manual was produced in English and Chichewa which is being used to train fruit and mushroom collectors (see Annex 10). These were developed collaboratively between project partners, particularly FairWild, with input from Bio-Innovation Zimbabwe, and it draws from traditional knowledge and practices already used in the communities. This was particularly important for developing the fungi harvesting protocols, for which Cathy Sharp also contributed.

Activities 2.4 and 2.5: During Focus Group Discussions in year 1 with the 27 co-management villages, the indigenous wild fruit and mushroom species were assessed according to: perceived available volume and the scarcity or abundance of fruiting trees/mushrooms; specific months that fruit (or fruiting bodies) were picked was noted and challenges or risks discussed. These meetings identified knowledgeable community members that joined fieldwork in year 2 to map individuals of the selected target species. This provided some lessons on comparing what communities mention in meetings versus what is then seen in the field (see section 8).

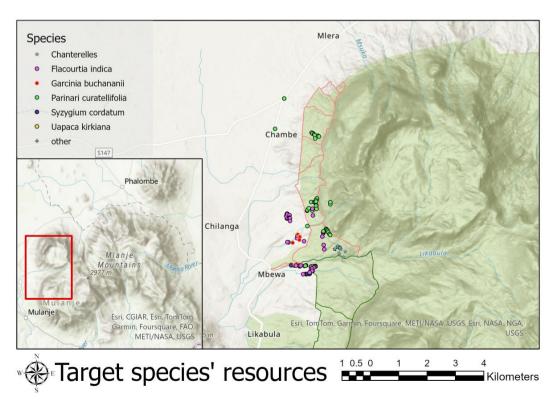


Figure 3: current map of resources for the project target species

Further meetings on the 7th, 8th and 9th of September 2023, were held with all the Village Heads and Group Village Heads to discuss the target fruit species with leaders and to share final thoughts on the availability of these resources.

The resource assessment fieldwork took place between September 2023 and February 2024. Each trip was undertaken by Kate Chanthunya (MMCT), Sivero Benias (Forestry Officer), The Forest Block Chairman and two or three community members familiar with the localities of target species. In total this involved 21 community members (15 women) (see figure 3 and Annexes 22 and 23). Mapping will continue in Year 3 to cover all co-management blocks area.

<u>Activity 3.1</u>: In August 2023, Sivero Benias and Kate Chanthunya visited Village Heads to prepare for the Ministry of Trade sensitisation meeting in September 2023 (see Annex 24). The project aims and target species were discussed, including resource collection opportunities.

From 11 – 15 September 2023, three staff members from the Malawian Ministry of Trade and Industry (MIT), specialising in Cooperatives, led by Geoffrey Chimowa, visited four project Group Village Heads to present cooperative membership and how cooperatives function (see Annex 10). These presentations were open to all the villagers and so were attended by various amounts in each area, without specific registers or numbers being possible to record (estimated 80 in one and 2,000 in another; and between 50 to 70% women).

Activity 3.2: A meeting coordinated by MMCT, and the Forestry Department was held with the Group Village Heads on 21st September 2023 concerning the Cooperative Member Training. Eighty participants were selected from each Group Village Head to attend, the selection criteria being: an interest in the Darwin Initiative Project objectives, literate, and at least 70% female attendees. Members of the Village Natural Resource Management Committees (VNRMC) and the Forest Block Committees (FBC) were selected amongst other community members.

The Co-operative Member Training took place from 6–10 November 2023 (see Annex 26) with 320 community member (75% women) participants. At the end, the committee groups for the co-operative at four business centres were elected with 43 community members (22 women).

Activity 3.3: Sustainable harvesting guidelines and training must align with FairWild certification to be certified in the future. This includes stringent rules on collector registration and record keeping, including training attendance to ensure sustainable practices are employed. FairWild experts have supported Kate Chanthunya to put these systems in place (see activities 4.5 and 4.7). The sustainable collection guidelines manual (see Annex 10) is being used to train collectors on best practices - so far 41 (25 women) have been trained and registered (see Annex 27). In the final year, a further 10 community members from each of 23 remaining villages will be collaboratively selected with Village Heads and VNRMCs / FBCs to be trained.

The link between the collectors and the co-operative is supposed to be post-harvest processing and storage happens within the business centres. The registered collectors are also encouraged to join the co-operative to potentially benefit further from the developing value chains, but it is voluntary requiring a fee (see section 8). So far, the processing of *Parinari curatellifolia* seeds for nut extraction is being taught to all the registered collectors, an activity that will take place at Business Centres for the co-operative.

Activity 3.4: The harvesting trials (see activity 2.2) and product testing (see section 3.2) is determining the best product lines to develop. In year 3, the co-operative members will be trained in the best processing options for new products from the target species.

Activities 3.5 and 3.6: The managerial and administrative positions for the co-operative and four business centres were selected at the Co-operative Membership training (see activity 3.2 and Annex 26). Following this, Geoffrey Chimowa from the MIT has supported the registration of the new Chole Farmers' Cooperative (see Annex 28).

Activity 3.7: A baseline Knowledge Attitudes and Perceptions (KAP) survey was conducted in October 2023, before starting the awareness campaign activities (see report in Annex 29). Fourteen enumerators were trained on survey delivery and data capture using Kobo Connect, surveying 1,009 people (504 from inside the co-management block communities and 505 from outside). This showed an understanding of the negative impacts of fuelwood and some knowledge of the Forestry act. A goal of the radio campaign (see activity 3.8) is to increase the awareness of the Forestry Act, particularly in relation to tree planting and tenure.

The report also showed the issue of men marrying into families to gain access to firewood is understood by some in the community (60-70%). The leadership training and community meetings should increase awareness of this issue, measurable by a larger increase relative to awareness outside of the project co-management blocks. One longer-term target identified (beyond the project timeframe) would be to change where firewood is harvested from, reducing the responses of it being harvested from the reserve (currently 40-50%), with more coming from agroforestry systems, as planted trees become harvestable.

Activity 3.8: A Behaviour Centred Design approach (https://rare.org/) was used to collaboratively design awareness activities for the project (see Annex 30). This led to a radio campaign and leadership training followed by community meetings being prioritised. In total, ten radio shows were aired between January and April 2024, with two repeating short radio jingles (three a day every day for 65 days).

The radio shows were aired twice a week (See Annex 31). These cover topics on the importance of Miombo biodiversity and conservation, charcoal licensing and explaining the Forestry Acts' relevance to indigenous tree tenure in the community. One hundred promotional T-shirts were also printed and distributed to radio show winners of questions, and to project partners and community leadership in local meetings and events (See figure 7 in section 11).

In the final year, school environmental education collaboration between WeForest and WESM will focus on forest conservation, fire management and Assisted Natural Regeneration. Information about the project and Miombo biodiversity conservation will be displayed at the Porters Race in July 2024. A new radio campaign will be developed to promote the project and importance of sustainable use of the miombo natural resources.

4.1 and 4.2: Group Village Heads and Village Heads meetings held 7–9 September 2023 addressed the subject of enterprise development, and the community leaders' opinions and thoughts were discussed. With social enterprise products not confirmed and the processing facility under construction, not much detail could be discussed. Further engagement will take place in the final year on how benefits from the social enterprises can be shared with the community in the long term e.g. establishment of conservation or development funds, or direct payments.

Inde Mulanje, the social enterprise, after being registered as a Limited Company without Guarantee (i.e. no shareholders – see Annexes 32 and 33) in the first year, is not yet functioning (although a processing facility is under construction, see figure 4).



Figure 4: Inde Mulanje processing facility under construction in Mulanje

<u>Activities 4.3 and 4.4</u>: These have been moved to the final year. Business incubator options are still being considered, including through links with FairWild and MUST.

Activity 4.5: A change request was accepted by the Darwin Initiative in December 2023 to move the full research budget into the final project year (see Annex 34). We are in initial discussions with the Food Science department of the MUST for them to test raw and processed target species products for nutritional composition, microbial load, and shelf life (see Annex 35). FairWild Foundation will also engage members and stakeholders of the African Baobab Alliance to learn lessons from the process of bringing Baobab to international markets.

Activity 4.7: Training was delivered by Dr. Valdon Smith (see section 2) in Mulanje 8–14 October 2023 with Dr. Marianna Smith (Organic certification). They provided technical support for a roadmap to implement the FairWild Standard with training on organic certification, and product processing and quality control in wild harvest operations.

Dr. Valdon Smith, FairWild's Business Development Associate Luke Heller, and mycologist Cathy Sharp returned to Mulanje February-March 2024 to support the development of the management plan for the wild harvesting operation, using the new template that had been developed for FairWild Standard version 3.0 and to assess harvesting risks (See activity 2.1).

Activity 5.3: A two-day training workshop was delivered by FRIM in Zomba 2-3 May 2023. Seven individuals were trained from four institutes (including WeForest and MMCT). It was tailored to sixteen native fruit and firewood, species that are found around the reserve, including information on seed collection protocols and propagation techniques (see Annex 36).

Further training was delivered online to 12 local community members by FRIM on 8 target fuelwood species in December 2023 providing information on species phenology and seed pretreatment/ sowing methodologies (see Annex 37). Eight (5 women) were recruited to guide and lead seed collection activities, based on their familiarity with the target species, and their previous involvement in training (in Project 26-017).

Activity 5.4: A focus group discussion with the local seed collectors was conducted in November 2023 to decide which of 11 target species to target for seed collection based on knowledge of the species (e.g., known distribution and abundance, seeding months). At this it was decided that 3 of the 11 species be excluded and 3 other species be considered (see Annex 38). Further data on firewood characteristics (speed of growth – including biomass productivity -, ability to coppice and calorific value /wood density - more than 0.8 g/cm3) were then used to refine the list to 8 (see table 4).

Table 4: Final selected fuelwood s	necies list and relevant seed	d collection data r	provided by FRIM
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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 affricana	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

Identification and mapping of target species within the Gibson and Nakhonyo co-managed subblocks took place in November 2023, over three days. Two expert botanists from FRIM, Stephen Mphamba and Humphrey Chapama, assisted to verify the target species (See Annex 39). These trees have then been regularly monitored by the community seed collectors since December 2023, in collaboration with a forestry officer using a reference document (Annex 40).

By the end of the year, five species (*Afzelia quanzensis, Breonadia salicina, Bridelia micrantha, Burkea africana,* and *Faurea saligna*) had been collected with propagation started at three MMCT run nurseries with 2,762 propagules of two species germinated.

Activity 5.5: Weforest in collaboration with MMCT, BGCl and the Centre for Ecological Research (CER), Kenya conducted GBS assessments in Kazembe and Tchete blocks from 8-14 March. Twenty-three new Permanent Monitoring Plots (PMP's) were established. Local biodiversity experts included an entomologist from Museums of Malawi - John Chipeta; a

botanist from FRIM – Stephen Mphamba - and an ornithologist from MUST – Dr. Tiwonge Gawa. WeForest established 10 more plots following the trip to bring the total to 23.

The PMPs will be monitored annually by students from MUST, six of whom were trained during this trip (See Annex 41).

Activity 5.6: Through matched funds, WeForest compiled an agroforestry training guide (see Annex 42) and ran two-day training for 59 lead farmers, each having approximately 25 follower farmers (see Annex 43). Under the Darwin Initiative, WeForest then facilitated the selection of 15 lead farmers (9 women) from the 59 from Kazembe and Tchete and in September 2023, conducted a rapid assessment of them to investigate the willingness for farmers to plant native species alongside the previously facilitated fast growing exotic species (see Annex 44 and 45). Eleven species were chosen, with utilisation for firewood, timber, fruits, soil fertility and shade.

In 26-27th July 2023, 18 members of Forest Block Committees (FBC) and Village Natural Resources Management Committees (VNRMC) were trained by WeForest and the Department of Forestry how to conduct early burns, with 60 community members (31 women) then involved in early burning activities (see Annex 46). In February, 142 community members (93 women) from the VNRMCs, FBCs and Village Development Committees (VDC) were also trained on environmental stewardship and leadership as well as roles and responsibilities in restoration and environmental protection (see Annex 47). Finally, 26 voluntary patrol group members (4 women) have been supported with protective equipment (uniforms, boots, whistles) and training in collaboration with Malawi College of Forestry.

Activity 5.7: Restoration activities have focused on protection this year. In May 2023, a 4-day technical workshop was organized with MMCT, Department of Forestry and WeForest to progress the bylaws, maps, management objectives, constitution, and a monitoring plan for comanagement blocks. A 2-day community validation meeting, facilitated by MMCT and WeForest, was held to ensure user-restrictions and management activities were discussed with local communities. The buffer/transition and the co-management activities were also presented to the local Area Development Committees and Village Development Committees.

211.75 ha was early control burned (June / July), representing 14.30% of the total co-managed area, to reduce the risk of more intense and damaging fires later in the year (see Annex 45). Firebreaks (8.3 km) have also been established in seven of the eleven project sub-blocks.

Patrols too place from 17th August to 12th September and again from 5th February to 15th March with 56 community members involved (11 women). In total 50 people were arrested (10 women) with a lot of equipment confiscated (See Annex 48). Resource limitations with WeForest meant none were supported from October to January.

The impacts of these activities will be assessed on biodiversity through future PMP assessments on the biodiversity and vegetation structure from activity 5.5.

3.2 Progress towards project Outputs

Output 1: The opportunities for sustainable use and market potential of at least 10 local plant and fungi species assessed

<u>Measurable indicator (MI) 1.</u>1: The steering committee met twice in the year – October and March to discuss progress and suggest courses of actions (see Annexes 12 and 13).

MI 1.2, 1.3 and 1.5: Achieved: Initial assessments for 11 species were completed by a market analysis consultant (March/April 2023), including assessment of firewood and charcoal value chains. and the information used to narrow down the list to 5 targets for development at a species selection workshop (see section 3.1 activities 1.4, 1.5 and Annex 16). The consultant produced a strategy report for the selected fruits and fungi in October 2023 (See Annex 49).

Across four markets in Mulanje and three in Thyolo, the charcoal prices, providing a guide for incomes needed from alternative sources, were:

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

90 kg flat bag between MK12,000-14,000

Native plant produce sales was also assessed, with *Uapaca kirkiana* the most sold, then *Syzygium* spp. and *Annona senegalensis*. They suggest 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 have been incorporated into the Inde Mulanje strategy with samples of processed fruit and nut products of 3 target species sent to Malawian Health shop "Healthify", Blantyre, and local high-end lodges and restaurants (Kara O Mula, Africa Wild Truck, La Caverna, Mulanje Sports Club). *Garcinia buchananii* dried samples were given to Satemwa tea estate, to assess its use in tea at "Doubleshot coffee & tea", Johannesburg. Dried fruit products (powders, snack bars and a dried and toasted mushroom seasoning powder) receive positive feedback, either alone or as ingredients in other products.

In Year 3 Kate Chanthunya will visit the Cape Town Natural and Organic Expo (27 April to 2 May) to connect with FairWild South Africa, and network with other natural product companies, to understand opportunities for Inde Mulanje wild products in the international market.

<u>MI 1.4:</u> Kate Chanthunya has trialled new product development options (see Annex 50). The improved methods for storage and preservation or shelf life are:

- 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).

New products being developed are (See figure 5):

- Dried and toasted mushroom seasoning powder
- 2. Garcinia buchananii cordial
- 3. Roasted and salted Parinari curatellifolia nuts
- 4. Flacourtia indica dried fruit squares
- 5. Parinari curatellifolia fruit roll
- 6. Naturally fermented vinegar

Advertising options to be tested in the final year are:

- 1. Social Media: Instagram, Facebook, TikTok
- 2. WESM and Mountain Club Newsletter inserts.
- 3. Display shelves at retail partners (e.g. Healthify health shop).
- 4. Wild Days at local restaurants/cafes with menu items showcasing wild ingredients.
- 5. Stalls at Farmers Markets and School Fairs give samples and sell products and connect with a loyal customer base.



Figure 5: examples of products made from Parinari curatellifolia fruit and nuts (juice, vinegar, dried fruit products)

Output 2: FairWild assessment carried out for 5 plant species and fungi species to identify gaps in knowledge to achieve FairWild certification

MI 2.1: Achieved: A sustainable collection guidelines manual has been produced, in collaboration between MMCT and FairWild, that is being used to train collectors (see section 3.1 activity 2.3). The training of members of the 23 co-management villages will be completed in the final year.

MI 2.2: Initial distribution maps have been produced (see figure 3 and section 3.1 activities 2.4 and 2.5). Further assessments will be done in the final year and the maps updated as required.

MI 2.4: 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 by consultant Marcin Kotowski (See Annex 19) and are available to be piloted in the project in Year 3.

Output 3: At least 5 community co-operatives established (with at least 50 community members in each, 50% female) and trained to cultivate, harvest and process products from the 5 selected target species, and >75,000 households with raised awareness of the importance of sustainable management practices to biodiversity and people.

MI 3.1: A Change Request will be made to alter this target (see section 8). The Malawian Ministry of Industry and Trade's (MIT) co-operative lead advised that one cooperative be established to cover all wild harvested produce instead of five, with four business centres (one for each Group Village Head area). Three hundred and twenty local people were then trained and 77 have joined the co-operative by the year end (See section 3.1 activities 3.1 and 3.2)

Two hundred and seventy community members, 10 from each village selected by the FBCs, are being trained in sustainable harvesting of target species. They are then registered collectors that can sell to Inde Mulanje and be FairWild compliant. Four of 24 villages have been trained by year end (Annex 18). Each registered collector will be advised to become a cooperative member if they wish.

MI 3.2: Eleven members of the Chole Cooperative Management Committee were elected in November 2023 (see section 3.1 activities 3.5 and 3.6 and annex 26). There is also a Supervisory Committee with three members, and each Business Centre has a registered 11-member committee. These 43 people (22 women) will receive further training and be supported to access MIT benefits in the final year.

<u>MI 3.4</u>: On 19th May 2023, Kate held a beeswax solar extraction and product demonstration for Mulanje beekeepers at Mulanje Mission Hospital Sustainable Livelihoods Centre (see figure 6). Dipped beeswax candle production, lip balm and wood polish products were made with the attendees. This offers some micro-businesses opportunities using beeswax as a raw material. 14 community members, including 8 beekeepers, attended (3 women).



Figure 6: Janet Lawore (Bees for Development, 6th from right), Kate Chanthunya (5th from right) and participants producing candles at the solar extraction training session on 19th May 2023.

In the final year, MMCT will complete a programme of training workshops in collaboration with Mayankho Community Organisation (MCO). MMCT will provide practical skills and MCO the business skills and access to loans to support the businesses to develop after this.

MI 3.5: A baseline KAP survey was completed in October 2023 and an awareness campaign designed using the Behaviour Centred Design approach, with radio and leadership training implemented (see section 3.1 activities 3.7 and 3.8). The campaign's impact will be measured in follow up surveys at the project end.

Output 4: A social enterprise established, and people trained and supported to formalise and certify the value chains of 5 plant or fungi taxa

<u>MI 4.1</u>: Specific recommendations based on engagements with different stakeholders have not been produced yet, but further engagements are planned for the final year.

MI 4.2: FairWild Foundation has acted as an incubator through provision of training and support to development the management plan for the Social Enterprise (see section 3.1 activity 4.7). FairWild Foundation is suggesting business incubator options, like TradeMark east Africa who are active in Malawi, to be communicated with in the final year to take the role.

MI 4.3: Through matched funds, Inde Mulanje is constructing a processing facility to be completed in the final year (see section 3.1 activities 4.1 and 4.2). This will support new value chain developments and means that a FairWild audit may be possible in the project.

MI 4.4: Products are being developed and tested and businesses engaged by Kate Chanthunya, that have shown interest in trialling sales when products are available in the final year (see MIs 1.2 and 1.4 and Annex 51)

MI 4.5: Business plans are covered in the FairWild management plan, which Dr. Smith and Caroline Jaquet (BIZ) assisted the project team in Malawi to develop (see sections 2 and 3.2 activity 4.1 and Annexes 52 and 9).

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

A Change Request will be made to alter many targets for this output, reflecting a change in project restoration strategy following discussion by the project lead partners – passive restoration prioritised ahead of active restoration (see section 8).

MI 5.1: Two co-management block plans have been developed following consultation, led by WeForest, with local stakeholders, and local government (see Annexes 4 and 5). 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.

The Centre for Ecological Restoration, Kenya from BGCl's Ecological Restoration Alliance of Botanic Gardens has then supported establishment of a new monitoring method using the Global Biodiversity Standard with the future support of MUST (See section 3.1 activity 5.5). This provides a baseline understanding of the biodiversity across the co-management blocks showing the well know regenerative capacity of miombo - even within the most degraded co-management blocks a diversity of plants is found in new growth layers.

<u>MI 5.2</u>: The strategy change means planting is only going to happen in a smaller scale within the agroforestry landscape and so less seedlings are needed and fewer community nurseries.

For the raising of the agroforestry seedlings, it is expected that they will be initially raised at MMCT nurseries, employing a few local community members to manage, before being transported to lead farmers to look after in temporary nurseries, that only become active in August, as per the strategy used by WeForest with exotic species in year 2.

MI 5.3: Through matched funds, WeForest supported 50 lead farmers (26 women) and over 1,490 follower farmers (1,108 women) to raise 75,367 seedlings of four exotic species. Partners agreed to incorporate native plants in the second half of the year (see section 8). WeForest then engaged a subset of the trained farmers to assess interest in native species and select which to plant this year (see section 3.1 activity 5.6 and Annex 45). Seedlings were sourced from local nurseries in Mulanje and Blantyre, with seeds of one species requested by communities being purchased (see table 5).

Table 5: Species planted in agroforestry on farmers land this from December 2023-March 2024

Botanical name	Seedlings planted in agroforestry	Farmers
Cordyla africana	52	52
Khaya anthotheca	1,854	310
Tamarindus indica	545	195
Ziziphus mauritiana	81	81
GRAND TOTALS:	2,532	310

In the final year, 15 more lead farmers will be included, with roughly 375 more follower farmers taking the total trained to plant native and exotic plants in agroforestry systems to 780 farmers.

MI 5.4: Approximately 12km of firebreak were maintained in the 6 block of Kazembe and Tchete, contributing to the natural regeneration strategy being followed in the sub-blocks.

In the final year, integrated tree nurseries will propagate and raise target native tree from seeds collected from the reserve to be planted in agroforestry across Kazembe and Tchete.

Through matched funding, MMCT has mapped sites for Assisted Natural Regeneration and is carrying out protection activities in new areas separate to the Darwin Initiative. Highly degraded areas have been identified for enrichment planting so some may be done in the final year.

MI 5.5: User restrictions on plants and fungi species are being developed and supported by local structures like the chief's forum. Adherence to the restrictions in combination with fire protection and awareness campaigns should allow natural regeneration to occur. These restrictions require final agreement of the Director of Forestry – so far it has been validated by the Regional Forestry Officer. The monitoring of biodiversity through the established PMPS will facilitate the quantification of biodiversity benefits of this restoration strategy.

3.3 Progress towards the project Outcome

The Outcome statement was "500 hectares of miombo woodland and 500 hectares of smallholder farm agro-forestry woodlots, comprising economically important native plants and fungi, are restored/managed sustainably benefiting biodiversity and supporting >10,200 people's livelihoods". This and the measurable indicators will be requested to be changed in the final year, following discussions and changes of restoration plans in year 2 (see section 8).

MI 0.1: Six value chain opportunities have been identified and tested by the MMCT project coordinator, Kate Chanthunya, and 5 businesses in Blantyre and Mulanje expressed interest in samples provided (see section 3.2). Larger harvests and product development using new equipment (large food driers from South Africa) during the final year will mean that these markets can be tested at a larger scale. The developed sustainable collection guidelines and collector training, as well as a business management plan, following two weeks FairWild training and follow up means these value chains align with the FairWild Standard (See section 3.1 activities 2.1-2.3, 3.3 and 4.7).

MI 0.2: A new co-operative, the Chole Cooperative with four Business Centres has been registered (see section 3.1 activities 3.2-3.6). Native economic species are being collected to be propagated and raised in local nurseries to provide to farmers to use in agroforestry planting in the final year (see section 3.1 activities 5.3-5.4). The co-operative and agroforestry links to the are to be confirmed since currently WeForest is leading agroforestry planting with different farmers than those that have joined the co-operative. This is partially because agroforestry planting is now focussing on fuelwood species rather than the selected species for value chain development, leaving those species as wild harvested value chains.

MI 0.3: The Inde Mulanje Social Enterprise was registered towards the end of year 1 (see section 3.1 activities 4.1-4.2). Product research has produced many new product options (see section 3.2), and further research is to be delivered in the final year by MUST and/or a South African cosmetic laboratory, to confirm products suitability for markets (see section 3.1 activity 4.5). This should connect products up with at least 5 local markets, based on current interest, and one with international potential.

MI 0.4: Sales of fruits from trials this year, provided varied incomes to harvesters with fruits being bought at between MK700-2,000MK per Kg, and *Parinari curatellifolia* nuts for MK4,500-6,000 per Kg. The average earned per person per harvest were: MK6,409 for *Garcinia buchananii*; MK7,870 for *Flacourtia indica*; 8,322 for *P. curatellifolia* fruits; and 2,775 for *P. curatellifolia* nuts (See section 3.1 activity 2.2 table 3). 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 (between 0.5-33 Kg collected), and so the income per time was greater for fruit harvesting than firewood collection.

The socio-economic report (see Annex 53) states that mean annual incomes from firewood sales was MK134,854 and Charcoal MK257,612. This means that to reach 20% more income (MK161,825 for firewood and MK309,134 for charcoal) there would need to be at least 25 and 47 sales to meet firewood and charcoal incomes respectively, using average income per fruit sale from *G. buchananii* - MK6,409, or at least 5 and 8 sales, using the highest individual income seen at a single purchase – 33 Kg of *P. curatellifolia* earning MK33,000.

It is expected that the amount earned will increase in year 3 and beyond because the year 2 were a one-off purchase, just five times in the year, to be used to trial new product testing. *Uapaca kirkiana* also unusually failed to fruit, when it normally has the highest yields from areas it grows in stands, so there should be greater sales opportunities from this species in the final year. However, considering markets are still in early stages the income target seems ambitious.

With just 56 collectors supported, and the resource assessments showing reduced resources of some species than expected, the target of 500 people harvesting wild fruits and gaining incomes is too ambitious. A Change Request to alter these targets is to be submitted.

MI 0.5: This year, four native species were planted in agroforestry on farms (see section 3.2 table 5).

In the final year, WeForest aims to identify Village Forest Areas (VFA) and potential areas for woodlots. These will be community areas that could benefit from firewood collection, beehives, and NTFP's. An area has been identified in Chilanga village, Gibson sub block.

3.4 Monitoring of assumptions

<u>Assumption 1</u>: This holds true, for example, Healthify, a health food shop in Blantyre, has provided a letter showing their interest and support (see Annex 51).

<u>Assumption 2</u>: This holds true, as the co-operatives have 43 administrative members and 44 other members who have paid to join it.

<u>Assumption 3</u>: The best restoration practices, of protection to allow natural regeneration, were agreed between partners this year. In the long term, this should improve biodiversity, with the high regenerative capacity of miombo seen (see section 3.1 activity 3.5), however with the damage being seen is increasing following the currency devaluation in November 2023 (see section 14), so the full biodiversity benefits may not be realised in the next year.

<u>Assumption 4</u>: It was noted charcoal prices at the local market slightly increased since the socio-economic survey due to the currency devaluation, but without impacting project targets (see section 14).

<u>Assumption 5</u>: The market analysis consultant was able to provide figures for incomes from firewood and charcoal, having done similar work elsewhere in Malawi. Charcoal producers are a small segment of local society and so increasing overall community protection via awareness, income benefits and strengthened decision making, as partners are doing may be more important than trying to offer the charcoal producers opportunities directly.

<u>Assumption 6</u>: The current resource assessments serve as a baseline for further assessments to be compared to (see section 3.1 activities 2.4 and 5.5). In many fieldwork activities this year, logging has been noticed of some target species for firewood or charcoal collection, but there are still adequate numbers of large trees of the target species to enable sustainable use plans.

<u>Assumption 7</u>: This remains true with community members still active in the co-operative set up and harvesting trials that have been completed.

<u>Assumption 8</u>: A business incubator has not been confirmed, although the FairWild consultants have provided a good supporting service this year. Identifying an incubator in Malawi may be challenging, FairWild will help to identify one further afield (see section 3.1 activity 4.3).

<u>Assumption 9: VNRMCs</u> should stay interested if an economically viable market for the raw ingredients is created.

<u>Assumption 10</u>: GBS work with further PMPs established and a new partnership with MUST to do monitoring in the future, will ensure biodiversity impacts can be measured (see section 2, and section 3.1 activity 5.5).

3.5 Impact: achievement of positive impact on biodiversity and poverty reduction

Poverty, and a lack of employment opportunities and land, drive land conversion around Mount Mulanje, with people reliant on mountain resources to make up livelihoods' deficits. This includes the firewood and charcoal industries, which are expanding and degrading swathes of miombo woodland around the mountain. Native species are exploited in the wild that are now in need of restoration, sustainable management and increased local knowledge and skills. This project supports this in target areas, using the FairWild Standard to help to develop value chains, and improve access to markets, increasing native wild plants value.

The socio-economic survey showed average monthly household incomes (MK36,389) are below the countries minimum wage target (MK50,000). It also showed low incomes from native plants (MK1,100 monthly -see section 7 and Annex 53). This year, the project has trialled the purchase of small amounts of target fruit species to develop new processed products (see section 3.1 activity 2.2). Even from these small trials, the incomes from native plants are increased and bringing incomes to meet the minimum wage with their normal income activities. Since this was first time and the resources purchased were only small, the potential to increase incomes above MK50.000 for the months the fruit are available is considerable.

The baseline data collected as part of the GBS fieldwork in early March, taken from plots established across the two co-management sub blocks, show the current diversity from sites that are heavily degraded (Mphaya in the north with no trees remaining) to those with standing forest remaining (Nakhonyo and Gibson). This includes ornithology, entomology, and botany data. With the partnership WeForest has created with MUST, this means the impact of any activities can be monitored into the future to ensure restoration and management strategies are impacting positively on biodiversity. The data do show good regeneration of miombo species, even in the most degraded plots.

4. Project support to the Conventions, Treaties or Agreements

The main area of policy interaction for this project has been regarding the use of native plants and ABS under the Nagoya protocol of the CBD. Kate Chanthunya, MMCT has had email communications with Malawi's National Focal Point, Ms Mphatso 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 in the final project year (see Annex 54). No policy has been directly altered by this project this year.

5. Project support for multidimensional poverty reduction

The project beneficiary groups are defined in tables 6 and 7 below, with table 6 giving the monetary benefits received and table 7 showing non-monetary benefits.

Table 6: Project beneficiaries and monetary benefits they received each project year.

	Monetary benefits received		
Beneficiary group	2022-2023	2023-2024	2024-2025 (target)
Fruit collectors	0	56	270
KAP survey enumerators	0	14 (MK20,000 p/day)	14
Seed collectors	0	12 (MK3,000 p/day)	12
Resource assessment: community members	0	21 (MK3,000 p/day)	21
Resource assessment: forestry officer and FBC chairs	0	3 (MK6,000 p/day)	3
Social enterprise workers	0	0 – infrastructure not ready	35

Vulnerable firewood collecting women	0	0	150
Totals	0	106	505

Table 7: Project beneficiaries and non-monetary benefits they received each project year.

	Non-monet	ary benefits	received
Beneficiary group	2022-2023	2023-2024	2024-2025 (target)
Fruit collectors – sustainable harvest delivered by MMCT	0	41	271
KAP survey enumerators - survey and use Kobo Collect delivered by MMCT and BGCI	0	14	14
Seed collectors –seed collection delivered by FRIM	0	12	24
Co-operative members (incl. administrative) – Co- operative Member training delivered by MIT	0	320	320
Leadership groups (VNRMC, FBC, Village heads, Group Village Heads) – restoration leadership, early burning and patrolling delivered by WeForest	0	186	350
Farmers (Agroforestry) – propagation, planting and management delivered by WeForest	0	390	780
Vulnerable firewood collector women	0	0	300
Community members – indirectly receiving knowledge from trained leaders	0	Ca. 42,900	Ca. 42,900
Totals	0	963 (+42,900)	2,085 (+42,900)

6. Gender Equality and Social Inclusion (GESI)

Please quantify the proportion of women on the Project Board ¹ .	38%
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ² .	80% of the five main project partners are women led (FairWild, BGCI, TRAFFIC, WeForest)

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	

¹ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

² Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

	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.	
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	X
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 has been designed so that partners' project activities are inclusive of women. Women are targets for, and so given the opportunity to be involved in, training and income generating activities if interested. One Measurable indicator, 3.4, is specific to "vulnerable firewood collecting women". Wild fruit and mushroom harvester developments are also targeting women and people with prior knowledge on the species, and for mushrooms, only those with prior knowledge, who are mostly poor women.

This has been achieved through community engagement meetings for all activities in years 1 and 2, building on the connections to communities MMCT and WeForest have developed through years working locally. These activities helped to identify people in a participatory manner, based on the interest in the project goals, knowledge of native plant use and their local standing and socio-economic situation.

In the education component of the project, the behaviour centred design approach identified a target to influence knowledge and opinions about an issue of men from outside local communities marrying women to gain access to resources for charcoal production, in a matriarchal system, who move on once this has depleted (see Annex 30). By working with community leaders to raise local awareness about this, the project is supporting community movements away from these practices to protect those marginalised women that are impacted.

7. Monitoring and evaluation

The lead partner for each project component (e.g. restoration, agroforestry, sustainable product development) carries out the monitoring for that component, with BGCI support where needed. Each lead partner feeds back to the project board in steering committees, and to other partners in management meetings (see section 3.1 activity 1.1). For many activities – KAP survey, tree mapping and seed collection, resource assessment, co-management protection patrols, agroforestry monitoring – KoboToolbox is used to collect data electronically to improve data management and analysis.

Locally important economic species were selected following community engagements (ethnobotanical studies – in project 26-017 and University of Kent Master student focussed on fuelwood species and use; community meetings by WeForest and MMCT), and literature review (nutritional values, fuelwood values). These have been narrowed down to 5 species – 4 plants and 1 fungi complex – for business developments (See section 3.1 activities 1.4 and 1,5) and 8 fuelwood species for agroforestry (See section 3.1 activity 5.4). The presence of these species in agroforestry plots and restored areas will help to confirm the success of the outcome of the landscape "comprising economically important native plants and fungi".

500 hectares of miombo woodland comprise target economic species:

The project used the GBS methodology to establish 23 PMPs (see section 3.1 activity 5.5 and Annex 41) across the landscape's degradation gradient recording the diversity of plant (including numbers in different vegetation layers), insect and bird species. Those data show the number and place in the vegetation that the target economic species can be seen. Using the methodology on a yearly basis will allow the monitoring of change through time to show how successful restoration practices are and how the target economic species are included.

500 hectares of smallholder farm agroforestry woodlots comprise target economic species:

Farmers involved in agroforestry by WeForest are being given the option of native plants to include on their land with Darwin Initiative support (See section 3.1 activity 5.6). Lead farmers then verify the number of trees planted per species and the percentage that survive after 1 year, with WeForest support.

Supporting >10,200 people's livelihoods:

Baseline socio-economic (see Annex 53) and KAP surveys (see Annex 29) were completed to be able to understand project impacts on livelihoods. Incomes received and training attendance are being monitored using payment and attendance signing sheets, with WeForest and MMCT including these in reports on the activities undertaken.

The socio-economic survey, undertaken by DMT consult in June 2023, involved 313 household surveys, focus group discussions with 99 participants in separate male and female groups (53 women and 46 men) and 19 key informant interviews (9 women). Average monthly incomes were reported (see section 3.5). It also reported that native fruits did not provide high incomes to people – average of MK1,100 monthly - and 78.1% had never sold them. The project's long-term goal is to increase the income from native fruits and decrease the number of people who have not sold them before.

The socio-economic and KAP surveys report standard local household sizes are between 4-6 people. As outlined in tables 6 and 7, we expect 505 income beneficiaries and 2,014 non-income beneficiaries by the project end. Assuming each beneficiary is from a different family and incomes and training provide positive livelihood impacts for the whole family, between 8,056 to 12,084 people will be impacted by the project. In year 2, with smaller numbers involved in activities the livelihood impact has reached between 3,852 and 5,778 people.

FairWild:

The training from FairWild experts and the FairWild Standard and Management Plan Template (see section 3.1 activity 4.7) provides a structured framework against which to organise and assess wild harvesting operations, with consideration of environmental and social impact. The planned on-site pre-audit or audit in the final year will externally verify performance. Successful certification provides an ongoing mechanism to assure the performance of the wild harvests.

8. Lessons learnt

Manual developments, for agroforestry and seed collectors, used to support training has led to good survival of planted trees in farmland and good seed harvests from the co-management blocks for propagation. Using KoboToolbox forms to collect data across project activities has made collection and analysis much more efficient.

Economic species resource assessment lessons:

For 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 have shown the opposite. The economic incentive of the purchase trials facilitated members to find more of *P. curatellifolia* and *F. indica* beyond what they knew for their usual household consumption. For *S. cordatum*, it was realised that respondents grouped exotic *Syzygium* species because they are all called Nanyole and *S. cordatum* was found to have low productivity and are difficult to harvest because of pest impacts and they are riverside trees, so fruits fall into water.

When doing resource assessments of economic species, working with previously identified knowledgeable community members improved the exercise efficiency and empowered people to realise that their knowledge is important to the successful management of the natural resources. Mapping will continue in the final year to create a comprehensive map of the 13 target species. The harvest trials also gave community a glimpse of alternative livelihoods options, although one improvement could have been to train and register collectors before the fruiting season to ensure only registered collectors came with fruit on the purchasing days.

Development of a management plan and wild harvesting operation from mapping and assessment activities has been a big success of the year, with initial products made and local markets tentatively engaged. There is a good base to grow from in the final year.

Co-operative lessons:

The team has learnt valuable lessons regarding co-operatives and their ability to support the wild fruit and mushroom developments in Malawi:

- 1. It is costly, requiring government protocol and MIT experts for sensitisation and training.
- 2. Wild fruit and mushroom perishability require 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. This restricts how much can be stored and processed.
- 3. The co-operative membership fee holds people from joining without them being able to see the benefits.

If repeating the process, we might choose to work directly with collectors to provide resources for the established social enterprise, without a co-operative in the middle. This was also advised by the market analysis consultant (although after co-operative set up had begun).

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.

Change Request:

Despite good progress, we plan to make some changes to the project targets following lessons learnt in the year and have drafted these for submission as a Change Request. These include:

- Change the target for agroforestry away from "number of hectares" to number of native plants planted.
- Reduce the number of co-operatives decided to just need 1 following engagement with the MIT, with 4 business centres.
- Reduce the numbers of nurseries propagating seedlings and seedlings being propagated the strategy for restoration has changed from active to passive, with planting only undertaken as part of agroforestry.
- Reduce the target for income generation expectation comparison to charcoal incomes since the current target is better as a long-term target beyond the project timeframe.

9. Actions taken in response to previous reviews (if applicable)

There are two main review comments from the year 1 Annual report:

- "Please hold a meeting with project partners to discuss management plans as soon as possible": meetings were held throughout the year to align project partners and discuss management plans (see Annexes 6-8 and 11-12). Co-ordination between MMCT and WeForest has improved this year directing activities, sharing resources, and using the Behaviour Centre Design to collaboratively develop an awareness raising campaign. The chief's forum, established from this and owned by the communities rather than partners or the project, is valuable to ensure longer-term sustainability of the activities. This improvement aided agreement that some Darwin Initiative funds would support miombo native plant species with good fuelwood characteristics to be collected and propagated to include in agroforestry to demonstrate their alternative usefulness.
- "The report states that the project has secured matched funding of expects a total of by the end of the project. It is unclear why the total value is less than the funding secured to date what we are looking for here is a total figure (i.e. the total secured to date plus what is expected by the end of the project).": We have updated the matched funding figures in section 13.

10. Risk Management

Malawian Kwacha devaluation has increased to risk of charcoal impacts on the miombo woodland locally, and elsewhere in Malawi since November 2023. This has not resulted in any project strategy changes directly; however, the altered restoration strategy (see section 8) is

supportive towards this negative development – protection, awareness raising and community empowerment.

10. Sustainability and legacy

Where early burning was conducted there were less incidences of fire and communities participate in firefighting and firebreak construction and controlled burns readily.

Local cafes, lodges and retail outlets have all shown interest in samples of products developed following harvest trials (see section 3.2). The health benefits of wild harvested fruits and mushrooms are of particular interest, as is supporting businesses that benefit rural communities while conserving natural resources.

MMCT has shared and learned from Bio-Innovation Zimbabwe (BIZ) since the same species occur in Zimbabwe and BIZ has been working on them for some time, although focused on seeds more than fruit. This openness to collaboration will help to identify other sites in Malawi and elsewhere to provide raw materials for new product markets, as the markets grow nationally and then internationally.

To improve restoration sustainability, profits from beekeeping in the FBCs and Water for people through the Blantyre-Mulanje water fund initiative are being engaged as potential sources of funds to support communities to protect the co-management blocks. A social enterprise profit-sharing mechanism is also to be confirmed (see section 3.2 and 3.1 activities 4.1 and 4.2).

The development of alternative livelihood options from native plants has progressed so that in the final year, larger harvests and more products can be made with trials of sales in engaged outlets (See section 3.2).

11. Darwin Initiative identity

The project collection operation is now listed on the FairWild website in the Pathway Operators
- Mulanje Mountain Conservation Trust — FairWild Foundation. The Darwin Initiative logo will be added to this as well as contextual information. Organisations and initiatives financially supporting the FairWild Foundation — including the Darwin Initiative — will be thanked in FairWild Foundation's annual impact report. There is also a project page on the BGCI website that explains the project and has the UK International Development and Darwin Initiative logos.







Figure 7: Kondwani Chamwala, MMCT education officer, with a t-shirt (left), community members wearing their t-shirts (middle) and the front cover of the Sustainable collection guidelines manual (right).

Training events and community meetings always highlight the Darwin Initiative as the project funder with the logo on presentations. The logo is also put on project documentation, like the Sustainable collection guidelines manual and on T-shirts as prizes for quiz questions in the radio campaign (see figure 7). During interactions with potential customers and retailers the Darwin Initiative is always mentioned as the project funder.

As the third Darwin Initiative project in Mulanje and Phalombe districts, there is a wide local recognition of Darwin Initiative. For all business developments using native plants and fungi, for example the collector training and registration, the Darwin Project is the only driver and so is known by the communities involved as "The Darwin Project", or just "Darwin". Restoration components, including agroforestry, are part of WeForest matched fund activities but the incorporation of native species is specifically identified as driven by the Darwin Initiative.

The partnerships with other institutions like MUST and WESM as well as government officials (e.g., ABS National focal point) mean that other conservation, research and government institutes are also aware of the Darwin Initiative. Shorter communications with other restoration practitioner institutes, like Wells for Zoe and Cabi have extended this awareness even further.

A case study on the Mount Mulanje project was also developed (see Annex 55) using resources from TRAFFIC's sub grant on the Global Biodiversity Standard (DAREX001). The material will be used for internal training purposes for technical staff working on the Global Biodiversity Standard and will also be published to inspire other restoration practitioners to integrate a deeper focus on sustainable use and livelihoods in their work.

12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Yes
Have any concerns been reported in the past 12 months	Yes
Does your project have a Safeguarding focal point?	Yes Ane –
Has the focal point attended any formal training in the last 12 months?	Yes [If yes, please provide date and details of training]
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 54% [7] Planned: 100 % [13]

Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.

WeForest have noted, that apart of existing local structures, there is a lack of an independent and confidential grievance mechanism. WeForest therefore, feel there is a need to establish grievance and redress mechanisms for the project.

Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.

WeForest has plans in place to establish grievance and redress mechanisms, for instance suggestion boxes strategically placed with traditional leaders. However, in 2023/24, WeForest has always engaged communities on an open forum to discuss any grievances with local structures such as VDC. ADC and chiefs included.

Please describe any community sensitisation that has taken place over the past 12 months; include topics covered and number of participants.

No meetings focussed specifically on safeguarding in the year.

Have there been any concerns around Health, Safety and Security of your project over the past year? If yes, please outline how this was resolved.

None that have arisen.

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2023 – 31 March 2024)

Project spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total Darwin	Variance %	Comments (please explain significant
		Costs (£)		variances)
Staff costs (see below)				The replacement
				project manager had a
				higher salary than the

Conquitoney costs			departed (end of year 1). Wages at MMCT increased 20% on 1 st July and. Wages at WeForest also increased due to the devaluation in Nov.
Consultancy costs			
Overhead Costs			
Travel and subsistence			Resource assessment and seed collection fieldwork started later than planned due to species selection delays.
Operating Costs			Resource assessment workshops were not needed, because sufficient information and identification of knowledgeable stakeholders was understood in year 1.
Capital items (see below)			Currency devaluation increased price of dryer costs relatively
Others (see below)			Meeting costs were less than budgeted because some steering committee members could not travel from Lilongwe and the species selection workshop was done at MMCT offices rather than a local hotel.
TOTAL	141,985	141,983	
i		-	

Table 2: Project mobilised or matched funding during the reporting period (1 April 2023 - 31 March 2024)

	Secured to date	Expected by end of project	Sources
Matched funding leveraged by the partners to deliver the project (£)			BRIDGE fund (year 1 - WeForest (this year)
Total additional finance mobilised for new activities occurring outside of the project, building on evidence, best practices and the project (£)			Jersey Overseas Aid Climb Conservation and livelihoods in Malawi Biospheres project with Plan International

14. Other comments on progress not covered elsewhere

TRAFFIC is currently developing guidance on integrating sustainable use into restoration projects with funding from CCI's Endangered Landscapes and Seascapes programme. Guidance materials developed (by April 2025) will be available to project partners. TRAFFIC is exploring pathways to support access to certification standards through the project "Wild Harvest Improvement Projects" funded through the Darwin Innovation fund. Insights from the Mount Mulanje project will feed into this work, and the recommendations and new tools developed under this project will ultimately feed into this work too.

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.

15. OPTIONAL: Outstanding achievements or progress of your project so far (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).

Native plant products to connect and protect:

15 Agroforestry lead farmers linked to Kazembe and Tchete Co-management block areas. Twenty-three permanent monitoring plots for birds, plants and insects established in the co-management blocks. Following the use of a behaviour centred design approach, a targeted radio campaign launched, and a new community chief's forum established, for chiefs to discuss ecological restoration and conservation in their areas. This aims to influence fuelwood provision as much away from the reserve as possible, promoting new native fuelwood plants to be grown in agroforestry on farms or woodlots.

In total 963 local community members received training in agroforestry practices; conservation leadership; controlled burn practices; seed collection and propagation practices; sustainable harvesting and processing of fruits; and co-operative operations, management, and organization.

Incomes have also been made by local people from the controlled purchase of native fruits for testing in new product developments. These incomes varied dependent on how much individuals collected, but from the beginning of January to the end of February, Feresta, from Mangombo village, earned K47,000 and her friend Asigere, earned K57,600 in sales. Meanwhile, Mercy is from Nakhonyo village harvested 17kgs of *Garcinia* and 15kgs of *Flacourtia indica* with her adult son over the purchase season bringing in K64,000.00 to her family and village.

Which local monthly income shown to be MK36,389 per person, these are considerable, even though only low volumes so far. In a year, firewood and charcoal sales have been shown to be MK134,854 and MK257,612 respectively – two income targets to aim for long-term.

Nakhonyo sub-block is the most intact Miombo woodland in the co-management area, and now, in Mercy's words, the village have more reason to keep it in good condition as people are seeing the income benefit of this project.

Market connections are now being identified to ensure this is possible – hotels, cafes, restuarants and health shops in Blantyre and Mulanje initially before expanding to the capital, Lilongwe and further once the concept and a demand can be shown.

FairWild certification may help look further afield and the new FairWild Standard, published in 2023 including a new methodology for risk classification of fungi species should start this process locally in 2024/205.

File Type (Image / Video / Graphic)	File Name or File Location	Caption including description, country and credit	Social media accounts and websites 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 Financial Year 2023-2024

Project summary	Progress and Achievements April 2023 - March 2024	Actions required/planned for next period
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	New market opportunities have been identified from 5 native miombo plant and fungi species, with sustainable harvesting guidelines, resources assessed, harvesters trained, a FairWild business plan drafted, and businesses engaged to test sales in the final year. Community protection from both fires and illegal harvesting has also been boosted with a new co-management plan agreed for 1,481 hectares. Finally, the status of biodiversity understood with a monitoring plan in place with local institutes trained to do the monitoring so that impacts of all activities on the miombo can be assessed in the future.	
Outcome		
500 hectares of miombo woodland and 500 hectares of smallholder restored/managed sustainably benefiting biodiversity and supporting		native plants and fungi, are
Outcome indicator 0.1 5 value chain opportunities identified by the Q2 year 2 and	Six value chain opportunities have been identified and tested by the MMCT project co-ordinator, Kate Chanthunya, and 5	Larger harvests made from September 2024 onwards.
collection practices aligned to the FairWild Standard by the project end.	businesses in Blantyre and Mulanje expressed interest in samples provided (see section 3.2). The developed sustainable collection guidelines and collector training, as well as a business management plan, aligns these with the FairWild Standard (See section 3.1 activities 2.1-2.3, 3.3 and 4.7).	More products made at scale using new equipment by the end of the project.
Outcome indicator 0.2 5 new co-operatives formed with local communities that are	A new co-operative, the Chole Cooperative with four Business Centres has been registered (see section 3.1 activities 3.2-3.6). Native economic species are being	Co-operative members trained to process <i>Parinari curatellifolia</i> nuts by September 2024
officially registered with the government by the end of year 2. Three native economic species raised in nurseries in cultivation by cooperative members by end-year 2.	collected to be propagated and raised in local nurseries to provide to farmers to use in agroforestry planting in the final year (see section 3.1 activities 5.3-5.4).	Fruit harvesters supported to join co-operative to increase member numbers to 320 by December 2024
Outcome indicator 0.3	The Inde Mulanje Social Enterprise was registered towards	Nutrition and food safety
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.	the end of year 1 (see section 3.1 activities 4.1-4.2). Product research has produced many new product options (see section 3.2 and section 3.1 activity 4.5).	research undertaken in Malawi and / or South Africa.

		Sales of at least 1 product tested in Malawian shops, hotels, cafes and restaurant.
		Agreement with one international buyer made.
Outcome indicator 0.4 Yearly incomes from new products – with added support from cooperative, social enterprise and government – per hectare of land that incorporates the selected native species exceeds incomes from a hectare used to produce firewood or charcoal by at least 20% by the end of the project for at least 500 people.	56 collectors earned incomes for the purchase of native fruits in harvest trials for product development with an initial calculation for amount of harvest needed to match firewood and charcoal sales completed – in a year, at a minimum 5 purchases like seen this year, or a maximum of 47 purchases (see section 3.2 and Annex 56).	230 more collectors will be trained and registered and collect larger volumes of the target species fruits for product development from September 2024 to March 2025.
Outcome indicator 0.5 500 ha of miombo woodland restored, and at least 500 ha of agroforestry woodlots increase availability of at least 20 species of	211.75 hectares were early control burned this year in the 1,481 hectares target co-management blocks (see section 3.1 activity 5.7).	WeForest to identify Village Forest Areas and areas for woodlots by November 2024.
economically useful plants and fungi by at least 50% compared to un-restored, degraded areas.	Four native species were planted in agroforestry on farms (see section 3.2 table 5).	Ca. 25,000 seedlings of target economic species (fruit and fuelwood) will be raised to be planted on 780 farmers' land.
Output 1	1	
The opportunities for sustainable use and market potential of at least	st 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.	The steering committee met twice in the year – October and March to discuss progress and suggest courses of actions (see Annexes 12 and 13).	Two more steering committee meetings will be held in September-October and February-March.
Output indicator 1.2	Initial assessments for 11 species were completed by a	Kate Chanthunya, project co-
National and international markets for products from 10-15 short-listed native economic species understood by end of year 1	market analysis consultant (see Annex 15), The consultant produced a strategy report for the selected fruits and fungi in October 2023 (See Annex 49).	ordinator, to visit the Cape Town Natural and Organic Expo (27 April to 2 May) to connect with FairWild South Africa, and network with other natural product companies.
Output indicator 1.3	Market analysis completed with assessments of native plant,	Best product options decided
Maps of current local value chains for 10-15 short-listed native economic species, firewood and the charcoal industry produced	and local firewood and charcoal value chains across seven markets – in Mulanje and Thyolo (see section 3.2 and Annex 15). Suggested pathways for developments (see Annex 49)	before fruit season, September 2024.

identifying actors in the chain doing collection, processing, transport, and sale by end of year 1.	were: 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).	Products produced at larger scale to do trials of sales in at least 5 local venders and 1 international (see Annex 51).
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.	Product development trials included 5 processing options to prolong shelf life with 6 product types and 5 plans for advertisement (see section 3.2 figure 5 and Annex 50).	Completed
Output indicator 1.5 5 native economic species selected for sustainable development by Q1 year 2.	Information from market analysis, community engagement and literature review were used to select list of 5 targets for development at a species selection workshop – 1 was changed following the resource assessment exercise (see section 3.1 activities 1.4, 1.5 and Annex 16).	Completed
Output 2. FairWild assessment carried out for 5 plant species and fungi species	,	
Output indicator 2.1. Sustainable harvest protocols for 5 selected species produced by the end of year 2.	A sustainable collection guidelines manual has been produced, in collaboration between MMCT and FairWild, that is being used to train collectors (see section 3.1 activity 2.3 and Annex 10).	Completed
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.	Initial distribution maps have been produced (see figure 3 and section 3.1 activities 2.4 and 2.5).	Completed
Output indicator 2.3. Updated maps of the distribution and abundance of 5 selected species under new management practices produced by the end of the project.	To be done in the final year	Further resource assessments will be done in the final year and the maps updated by project end.
Output indicator 2.4. 5 selected species audited or pre-audited by FairWild, including innovative new audit for fungi by the project end.	FairWild Standard revised by FairWild Foundation (see version 3.0). Indicators for fungi developed by consultant (see Annex 19).	Pre-audit or audit, including test of fungi system, to be done in 2025 before project end.

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At least 5 community co-operatives established (with at least 50 community members in each, 50% female) and trained to cultivate, harvest and process products from the 5 selected target species, and >75,000 households with raised awareness of the importance of sustainable management practices to biodiversity and people.

Output indicator 3.1. At least 250 Community members selected through the Forest Block Committee to be involved in 5 co-operatives by Q2 year 2	It was advised this should be one co-operative with four business centres (one for each Group Village Head area), which has been registered (see Annex 28). 320 local people were selected and trained with 77 that have joined the co-operative by the year end (see section 3.1 activities 3.1 and 3.2; and Annex 26)	Completed
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 5 new co-operatives registered by the end of year 2.	A total of 43 people (22 women) make up the management and administration teams: 11 for the Chole Cooperative Management Committee; 11 for each Business Centre and 3 in a Supervisory Committee (see section 3.1 activities 3.5 and 3.6 and annex 26).	These 43 people (22 women) will receive training and be supported to access MIT benefits in the final year.
Output indicator 3.3. 250 co-operative members using sustainable harvesting/ processing methods and cultivating seedlings in at least 500 ha of woodlots for selected native economic species by Q2 year 3.	Forty-one community members (25 women) have been trained in sustainable harvesting of target species (see section 3.1 activity 3.3 and Annex 18).	Another 230 people from 23 villages will be trained and registered as collectors by September 2024.
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 their incomes at least 20% higher than from firewood sales by end of project	A beeswax solar extraction and product demonstration was held for Mulanje beekeepers in May 2023, and 14 community members, including 8 beekeepers, attended (3 women, although not targeting vulnerable women) (see section 3.2 and figure 6).	A new programme of training workshops for vulnerable women will be created by July 2024. 300 vulnerable women will be selected and trained by October 2024. Mayankho Community Organisation will provide trained women with the business skills and access to loans to support business development by March 2025.
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 EOP compared to the baseline survey carried out in Q1, year 2 in Mulanje and Phalombe	A baseline KAP survey was completed in October 2023 and an awareness campaign designed using the Behaviour Centred Design approach, with radio and leadership training implemented (see section 3.1 activities 3.7 and 3.8; and Annexes 29 and 30).	A mid term review to be done in May 2024 New activities designed by July 2024 New campaign delivered by January 2025

		A final assessment KAP survey undertaken by March 2025
Output 4.		<u> </u>
A social enterprise established, and people trained and supported t	o 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.	The social enterprise has been established (see Annexes 32 and 33)	Community engagement to understand how they would like benefits to be shared, to act as recommendations by August 2024
Output indicator 4.2. Business incubator supporting the social enterprise by Q2 year 2	A local business incubator has not been found yet, although FairWild Foundation has provided training and support to develop the management plan for the Social Enterprise (see section 3.1 activity 4.7 and Annex 9).	FairWild Foundation is suggesting business incubator options, like TradeMark east Africa who are active in Malawi, to be communicated with in the final year to take the role.
Output indicator 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.	Through matched funds, Inde Mulanje is constructing a processing facility to be completed in the final year (see section 3.1 activities 4.1 and 4.2).	New processing facility completed by November 2024
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.	6 new product types are being developed and tested and businesses engaged by Kate Chanthunya, that have shown interest in trialling sales when products are available in the final year (see section 3.2 and Annexes 50 and 51)	New products developed at larger scale and sold at 5 business in Malawi in trials by March 2025
Output indicator 4.5. Business plans developed for each of the 5 co-operatives and the social enterprise, including marketing plans and branding guidelines by the end of the project.	The FairWild trainers assisted the Malawian team with business plan developments (see sections 2 and 3.2 activity 4.1 and Annexes 52 and 9).	Business and marketing plans confirmed with consultant support, as needed, by March 2024
Output 5.		1
1000 hectares of degraded co-managed land under restoration and	cultivation with useful native plants and fungi to benefit people a	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	Two co-management block plans with restoration strategy have been developed following consultation, led by WeForest, with local stakeholders, and local government (see Annexes 4 and 5).	Completed. Updated as needed.

scientists, and expertise from WeForest and the Ecological Restoration Alliance by end of year 1.	The Centre for Ecological Restoration, Kenya supported establishment of 23 Permanent Monitoring Plots using the Global Biodiversity Standard with the future support of the Malawi University of Science and Technology to monitor (See section 3.1 activity 5.5). This provides a baseline of the biodiversity across the co-management blocks.	
Output indicator 5.2. 50 nursery members from 5 local nurseries collect seed & propagate 650,000 seedlings of at least 10 native economic & ecologically important species for restoration or livelihoods strategies by end-year 2.	This target needs to be updated since the restoration strategy changed to Assisted Natural Regeneration instead of active planting. Plants will be planted in agroforestry instead, and this year 2,532 of 4 native species were planted on 310 farmers' land and 5 fuelwood species have been collected with 2,762 propagules of two species germinated (see section 3.2 and 3.1 activity 5.4)	Seedlings to be raised of 8 target fuelwood species in MMCT nurseries and transported to community nurseries in August 2024. Raised seedlings planted in the rain season (December 2024 onwards)
Output indicator 5.3. 500 community members (50% women) trained to plant and manage 500 ha of cultivated agroforestry sites by Q2 year 3.	Through matched funds, WeForest supported 50 lead farmers (26 women) and over 1,490 follower farmers (1,108 women) to raise 75,367 seedlings of four exotic species. Partners agreed to incorporate native plants in the second half of the year (see section 8). WeForest then engaged a subset of the trained farmers (15 lead farmers and 375 followers) to assess interest in native species and select which to plant this year (see section 3.1 activity 5.6 and Annex 45).	In the final year, 15 more lead farmers will be included, with roughly 375 more follower farmers taking the total trained to plant native and exotic plants in agroforestry systems to 780 farmers.
Output indicator 5.4. 500 hectares of degraded co-managed boundary forest restored by end of year 2 (rainy season planting time).	Approximately 12km of firebreaks were maintained in the 6 blocks of Kazembe and Tchete, contributing to the natural regeneration strategy being followed in the sub-blocks. Through matched funding, MMCT has mapped sites for Assisted Natural Regeneration and is carrying out protection activities in new areas separate to the Darwin Initiative. Highly degraded areas have been identified for enrichment planting so some may be done in the final year.	Early burns undertaken and assessed in June-July 2024 12km of firebreaks maintained in the year
Output indicator 5.5. Biodiversity benefits of restoration strategy shown by a difference in number and abundance of plant and fungi species in restored areas compared to un-restored areas, from the 2023 baseline to the project end.	User restrictions on plants and fungi species are being developed and supported by local structures like the chief's forum. Adherence to the restrictions in combination with fire protection and awareness campaigns should allow natural regeneration to occur. These restrictions require final	PMPs monitored for second time by March 2025

agreement of the Director of Forestry – so far it has been	
validated by the Regional Forestry Officer.	

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 conservation and economic benefits	woodland surrounding Mount Mulanje are	restored, managed and used sustainably b	y local communities creating biodiversity		
Outcome: 500 hectares of miombo woodland and 500 hectares of smallholder farm agroforestry woodlots, comprising economically important native plants and fungi, are restored/managed sustainably benefiting biodiversity and supporting >10,200 people's livelihoods	 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 5 new co-operatives formed with local communities that are officially registered with the government by the end of year 2. Three native economic species raised in nurseries in cultivation by cooperative members by end-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 Yearly incomes from new products - with added support from co-operative, social enterprise and government - per hectare of land that incorporates the selected native species exceeds incomes from a hectare used to produce firewood or charcoal by at least 20% by the end of the project for at least 500 people. 0.5 500 ha of miombo woodland restored, and at least 500 ha of agroforestry woodlots increase 	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 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	Businesses identified nationally and internationally remain interested in using raw materials in value chains for their products Community members stay engaged in co-operatives Restoration practices identified and employed lead to greater biodiversity of degraded co-managed areas Economic returns from damaging practices (charcoal or firewood) remain stable		

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	availability of at least 20 species of economically useful plants and fungi by at least 50% compared to un-restored, degraded areas.	0.5b biodiversity survey results	
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 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. 	 1.1a 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. 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. 	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.
Output 2	2.1. Sustainable harvest protocols for 5	2.1a Risk analysis reports describing	Resource assessment activities do not
FairWild assessment carried out for 5 plant species and fungi species to identify gaps in knowledge to achieve FairWild certification	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. Updated maps of the distribution and abundance of 5 selected species under new management	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. 2.2b & 2.3b Resource assessment workshop reports highlighting	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.

	practices produced by the end of the project.	knowledge gaps to understanding sustainability of management	
	2.4.5 selected species audited or pre- audited by FairWild, including innovative new audit for fungi by the project end.	2.4a FairWild certification awarded and/or pre-audit internal report with recommendations, publication of fungi pilot results.	
At least 5 community co-operatives established (with at least 50 community members in each, 50% female) and trained to cultivate, harvest and process products from the 5 selected target species, and >75,000 households with raised awareness of the importance of sustainable management practices to biodiversity and people.	 3.1. At least 250 Community members selected through the Forest Block Committee to be involved in 5 cooperatives 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 5 new co-operatives registered by the end of year 2. 3.3. 250 co-operative members using sustainable harvesting/ processing methods and cultivating seedlings in at least 500 ha of woodlots for selected native economic species by Q2 year 3. 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 their incomes at least 20% higher than from firewood sales by end of project 	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 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.	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.
	3.5. The understanding of the importance of biodiversity to livelihoods, and ways and benefits of sustainable use increased at least 20% at EOP compared to the	3.5a Knowledge, attitudes and practices survey reports and analysis of change.	

	baseline survey carried out in Q1, year 2 in Mulanje and Phalombe		
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 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 each of the 5 co-operatives and the social enterprise, including marketing plans and branding guidelines by the end of the project. 	4.1a Workshop attendance records 4.1b Social enterprise recommendations report 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 ofpPre and post training impact surveys after conservation entrepreneurship and value chain research, development, and management 4.4a Product development research results 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	A good business incubator can be identified that is able to support the social enterprise establishment. Stakeholders maintain sustainable value chains supporting the social 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 the Ecological Restoration Alliance by end of year 1. 5.2 50 nursery members from 5 local nurseries collect seed & propagate 650,000 seedlings of at least 10 native economic & ecologically 	5.1a Workshop attendance records and report 5.1b Restoration strategy maps showing how different areas of target site will be restored 5.2a Training attendance records 5.2b Results of pre and post knowledge surveys to demonstrate the skills taken on	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 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.

important species for restoration or	
livelihoods strategies by end-year 2	

- 5.3 500 community members (50% women) trained to plant and manage 500 ha of cultivated agroforestry sites by Q2 year 3.
- 5.4 500 hectares of degraded comanaged boundary forest restored by end of year 2 (rainy season planting time).
- 5.5 Biodiversity benefits of restoration strategy shown by a difference in number and abundance of plant and fungi species in restored areas compared to un-restored areas, from the 2023 baseline to the project end.

- 5.2c Nursery stock records
- 5.3a Training attendance records5.3b Results of pre and post knowledge survey on how to plant, manage and monitor planted sites
- 5.4a Nursery sales records5.4b 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.

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

- 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
- 3.6 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

DI Indicator number	Name of indicator	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
E.g. DI-A01	E.g. Number of people in eligible countries who have completed structured and relevant training	People	Men	20			20	60
E.g. DI-A01	E.g. Number of people in eligible countries who have completed structured and relevant training	People	Women	30			30	60
E.g. DI-B01	E.g. Number of new or improved habitat management plans available and endorsed	Number	New	1			1	2
E.g. DI-B01	E.g. Number of new or improved habitat management plans available and endorsed	Number	Improved	1			1	3
DI-B03	New community management plans	Number	Co-management		2		2	2
DI-A01	Number of people in Malawi trained	People	Men		377		377	700
DI-A01	Number of people in Malawi trained	People	Women		571		571	1,350
DI-A03	Number of organisations with improved administrative and data monitoring capacity	Number of organisation s	NGO		1		1	1
DI-C10	Number of case studies published	Number			0		0	1
DI-D01	Hectares of habitat being protected from fire	Hectares	Protected areas		211.75		211.75	500
DI-A05	Number of lead farmers trained, to train follower farmers	People	Women		9		9	17
DI-A05	Number of lead farmers trained, to train follower farmers	People	Men		6		6	13
DI-D17	Income derived from sales of wild native plants and fungi from the reserve	GBP Sterling			£357		£357	£1,785

In addition to reporting any information on publications under relevant standard indicators, in Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. You should include publications as supporting materials with your report. Mark with an asterisk (*) all publications and other material that you have included with this report.

Table 2 Publications

Title	Type (e.g. journals, best practice manual, blog post, online videos, podcasts, 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)

Annex list: Onwards – supplementary material (optional but encouraged as evidence of project achievement)

- Annex 4: Tchete co-management block plan
- Annex 5: Kazembe co-management block plan
- Annex 6: WeForest and MMCT management meeting minutes
- Annex 7: Restoration group meeting minutes
- Annex 8: Public awareness strategy meeting minutes
- Annex 9: Inde Mulanje FairWild management plan
- Annex 10: FairWild sustainable collection rules and guidelines
- Annex 11: Mycorrhiza inoculation trial cultivation suggestions
- Annex 12: Steering committee meeting 3 October 2023
- Annex 13: Steering committee meeting 4 March 2024
- Annex 14: Native species information for potential development
- Annex 15: Kadale consultant market analysis report
- Annex 16: Species selection workshop scores
- Annex 17: FairWild risk assessment for 4 plant species Parinari curatellifolia, Syzygium
- cordatum, Flacourtia indica and Uapaca kirkiana
- Annex 18: FairWild risk assessment for Garcinia buchananii
- Annex 19: FairWild fungi risk assessment methodology
- Annex 20: FairWild risk assessment for Cantharellus fungi
- Annex 21: FairWild risk assessment heat map
- Annex 22: Resource assessment fieldwork summary
- Annex 23: Resource assessment fieldwork participants
- Annex 24: Group village head and village head meeting minutes, August 2023
- Annex 25: Co-operative training programme
- Annex 26: Co-operative Membership training report, November 2023
- Annex 27: Registered sustainable harvest trained collectors
- Annex 28: Chole co-operative registration documents
- Annex 29: Baseline KAP survey report DRAFT
- Annex 30: BGCI Year 2 education and public awareness report
- Annex 31: Radio programme schedule
- Annex 32: Inde Mulanje registration certificate
- Annex 33: Inde Mulanje company registration form
- Annex 34: Change request for finances
- Annex 35: Malawi University of Science and Technology collaboration for testing fruits and mushrooms proposal
- Annex 36: Forestry Research Institute of Malawi seed collection, processing and nursery management training
- Annex 37: Forestry Research Institute of Malawi online seed collection participants
- Annex 38: Seed mapping and collection summary
- Annex 39: Mapped target tree species summary
- Annex 40: Propagation and phenology information on target species
- Annex 41: Centre for Ecological Restoration, Kenya, biodiversity report
- Annex 42: Agroforestry training guide
- Annex 43: Lead farmer training report
- Annex 44: Rapid agroforestry assessment report
- Annex 45: Agroforestry training report
- Annex 46: Co-management early burning report
- Annex 47: Village Natural Resource Management Committees and Forest Block Committees training report
- Annex 48: Patrol report for Kazembe and Tchete
- Annex 49: Kadale consultant fruit and fungi strategy report
- Annex 50: Product development trials
- Annex 51: Healthify letter of support
- Annex 52: FairWild training consultancy report
- Annex 53: Socio-economic consultant baseline report
- Annex 54: Malawi Access and Benefit Sharing application form
- Annex 55: Case study

Annex 56: Fruit and nut sales information

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, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	Х
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Х
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	
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.	Х
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see Section 16)?	
Have you involved your partners in preparation of the report and named the main contributors	Х
Have you completed the Project Expenditure table fully?	Х
Do not include claim forms or other communications with this report.	I .