



IMPACT INSIGHTS

The effects of biodiversity-positive Micro, Small and Medium-Sized Enterprises (MSMEs) in Malawi and Zambia

Supported by:



Federal Ministry
for the Environment, Nature Conservation,
Nuclear Safety and Consumer Protection

Implemented by:





This publication by adelphi research gGmbH is licensed under a Creative Commons AttributionNonCommercial-NoDerivatives 4.0 International License.

This publication has been developed under the Biodiversity Finance Accelerator Southern Africa project that is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag. Please refer to the IKI webpage for further information: <https://www.internationalclimate-initiative.com/en>

Suggested Citation: Petterson, C., (2022). Impact Insights: The effect of biodiversity-positive Micro, Small and Medium-Sized Enterprises in Malawi and Zambia. Berlin: adelphi research gGmbH

Publisher:

adelphi research gemeinnützige GmbH
Alt-Moabit 91
10559 Berlin
+49 (030) 8900068-0
office@adelphi.de · www.adelphi.de

Design and Layout: Chandkachorn John Chandratat

Photo Credits: BioFA, Wuchi Wami, Forest Africa Zambia Limited, EFI, Tac-Maz

© 2022 adelphi

Contents

1. Biodiversity challenges for Malawi and Zambia	4
2. The role of biodiversity-positive enterprises	5
3.0 The objectives of this report	6
3.0.1. Methodology	6
3.0.2. Target group	6
3.1 MSME support for biodiversity	9
3.1.1. Contributing to the Aichi biodiversity targets	9
3.1.2. Measuring impacts	9
3.1.3. Safeguard enterprise operations	10
3.1.4. Climate change vulnerability	11
3.2 Economic viability of the product/service offer	12
3.2.1. Enterprise growth rates	12
3.2.2. External funding	12
3.3 Social inclusion and decent employment	15
3.3.1. Employment structures	15
3.3.2. Quality jobs.....	15
4. Synthesising the impact of biodiversity-positive enterprises	17
5. References	18

1. Biodiversity challenges for Malawi and Zambia

Biodiversity is a quintessential component of ecosystem functionality; it not only ensures ecosystems can remain resilient to incumbent changes but also that communities, businesses and economies are able to attain opportunities from a healthy ecosystem and intact natural resources (World Bank Group, 2020). When levels of biodiversity begin to diminish, the ecosystem becomes less functional, leaving communities with altered access to the essential services ecosystems provide, such as; food, clean water, flood protection, etc.

Unfortunately, global biodiversity loss has severely increased in the last century, with 32% of terrestrial land experiencing land use change (Winkler et al., 2021). Deforestation and land use change have been at the centre stage for most of these losses. In the case of Malawi and Zambia, biodiversity is a crucial component of the countries' economies, especially in the forestry, fisheries, and wildlife sectors. Regrettably, deforestation has dramatically increased in both countries due to augmented demands for forest-based products; land-use change driven by urban expansion and agricultural land expansion; mining operations; and harmful conventional practices. For example, charcoal derived from forest resources provides approximately 85% and 97% of the cooking energy in Zambia and Malawi, respectively (Republic of Malawi, 2017; USAID, 2022).

With populations growing at approximately 3% per year in both countries, there is ever-present demand for these products (World Bank, 2021). As a result, there has been a growing demand for forest goods, agricultural products, and aquatic resources. Due to limited enforcement of governmental regulations, natural ecosystems have begun deteriorating. According to the Malawian and Zambian national biodiversity strategy and action plans, the loss of forests and protected areas is a major biodiversity concern. Shown below is a chart that highlights the complexities of the drivers of biodiversity loss in Malawi and Zambia (Figure 1).



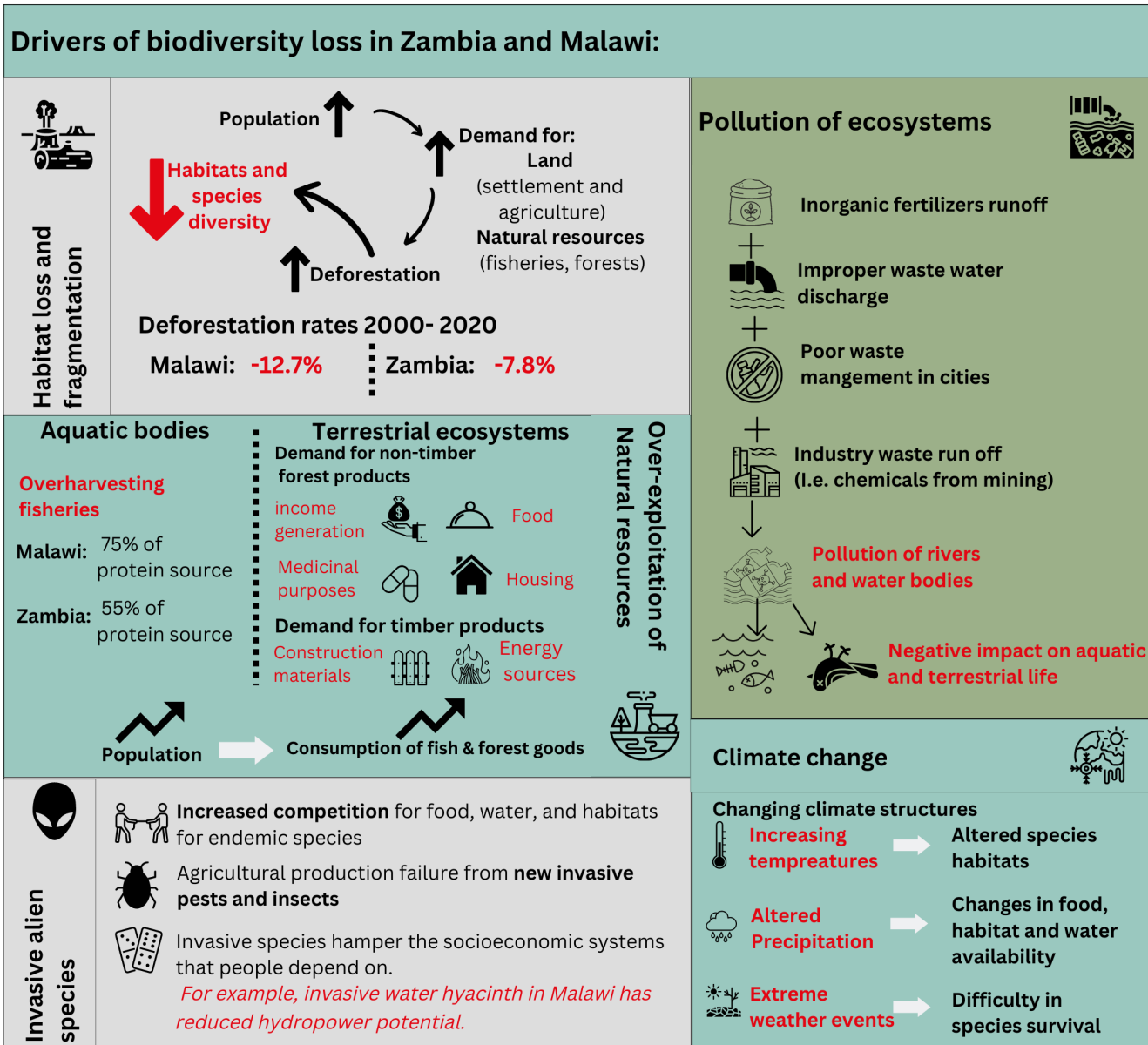


Figure 1: Drivers of Biodiversity loss in Zambia and Malawi

2. The role of biodiversity-positive enterprises

Taking into consideration the major biodiversity challenges Malawi and Zambia are facing, contextually relevant solutions are required. Micro, Small, and Medium-Sized Enterprises (MSMEs), being the backbone of economies worldwide and contributing to 87% of Zambia's (ITC, 2020) and 40% of Malawi's GDP (FinMark Trust, 2019), play a vital role as they offer bottom-up biodiversity and green solutions with their innovative business models.

What is the Biodiversity Finance Accelerator (BioFA)?

BioFA mobilises biodiversity investments and scales biodiversity-positive entrepreneurship, thus contributing to the sustainable use, conservation, and restoration of ecosystems in Malawi and Zambia. Biodiversity-positive micro, small and medium-sized enterprises (MSMEs) are supported to access finance and invest in growth, while financial institutions and other ecosystem players are trained in conservation finance to co-create innovative financing instruments for biodiversity MSMEs.

This project is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety and Consumer Protection (BMUV) supports this initiative on the basis of a decision adopted by the German Bundestag. Please refer to the IKI webpage for further information: <https://www.international-climate-initiative.com/en>

Biodiversity-positive enterprises as referred to in this report, are defined as those MSMEs that “generate profits via activities that conserve biodiversity, use biological resources sustainably, and share the benefits arising from this use equitably” (Bishop, Kapila, Hicks, Mitchell, & Vorhies, 2008). While there are several MSMEs across Malawi and Zambia offering solutions for biodiversity conservation, there is still a substantial lack of comprehensive data on their business models' economic viability as well as their impacts on nature and society.



3.0 The objectives of this report

This report aims to shed light on how biodiversity-positive enterprises are already contributing to biodiversity conservation, management and restoration in Malawi and Zambia. It therefore analyses a sample of 29 biodiversity-positive business models that have recently completed the Biodiversity Finance Accelerator (BioFA) enterprise support programme (June-December 2022) implemented jointly by adelphi, LUANAR (Malawi), Umodzi Consulting (Malawi) and WEAC (Zambia). The assessment focuses on three main components: i) Enterprise impacts on local biodiversity; ii) Economic viability of biodiversity-positive business models, and iii) Promotion of social inclusion and decent employment.

3.0.1. Methodology

The conducted impact assessment gathered data from the enterprises at two instances. First, the BioFA programme's application form functioned as an initial data collection point as enterprises were asked to provide baseline data on (a) the product or service they provide; (b) the socio-economic benefits they provide; (c) their scalability and replication potentials; and (d) the specific biodiversity angle and environmental impacts of their enterprise. Participants were asked to provide detailed qualitative and quantitative data on each of these aspects. Second, in order to ensure detailed, accurate data on the supported enterprises' progress, a digital survey was then sent to all enterprises upon completion of the enterprise support program (mid-november 2022). This survey sought to delve deeper into the respective components to try and understand in more detail aspects such as the prevailing labour and working conditions (including gender inclusion), methods of measuring the enterprises' biodiversity impact, and how their product/service affects its beneficiaries.

3.0.2. Target group

The BioFA project received a net total of 143 enterprise applications, of which 29 enterprises from Malawi (15) and Zambia (14), were chosen to participate in the enterprise support programme. The enterprises were selected by an international jury, based on criteria that assessed their contributions to biodiversity protection/ conservation, fair and equitable employment, their product/ service and its ability to provide solutions for both biodiversity and beneficiaries, and the business model's viability. The participating enterprises ranged from micro to medium in terms of company size with the majority at the early-growth development stage (see figure 2 below).¹ Likewise, most enterprises are in the growth phase where their production is running and they are working on consolidating and improving their business model.² The 29 enterprises are predominantly based in urban areas with relatively high populations, such as Lilongwe, Mzuzu, and Blantyre in Malawi and Lusaka, Kitwe, Kambwe in Zambia. However, despite their headquarters and selling locations located in urban centres, most enterprise key operations such as sourcing and processing take place in rural areas where also biodiversity-positive contributions can primarily be observed.

1 Each enterprise was categorised into the micro/small/medium according to national guidelines for each country. These can be found in the BioFA finance studies for [Zambia](#) and [Malawi](#).

2 The stages of growth can be defined as: the ideation stage occurs early in the project where enterprises are still designing their product and business ideas; the development phase when enterprises are first starting their product in the market and still defining their production process. The expansion phase occurs when enterprises are scaling and improving their production processes.

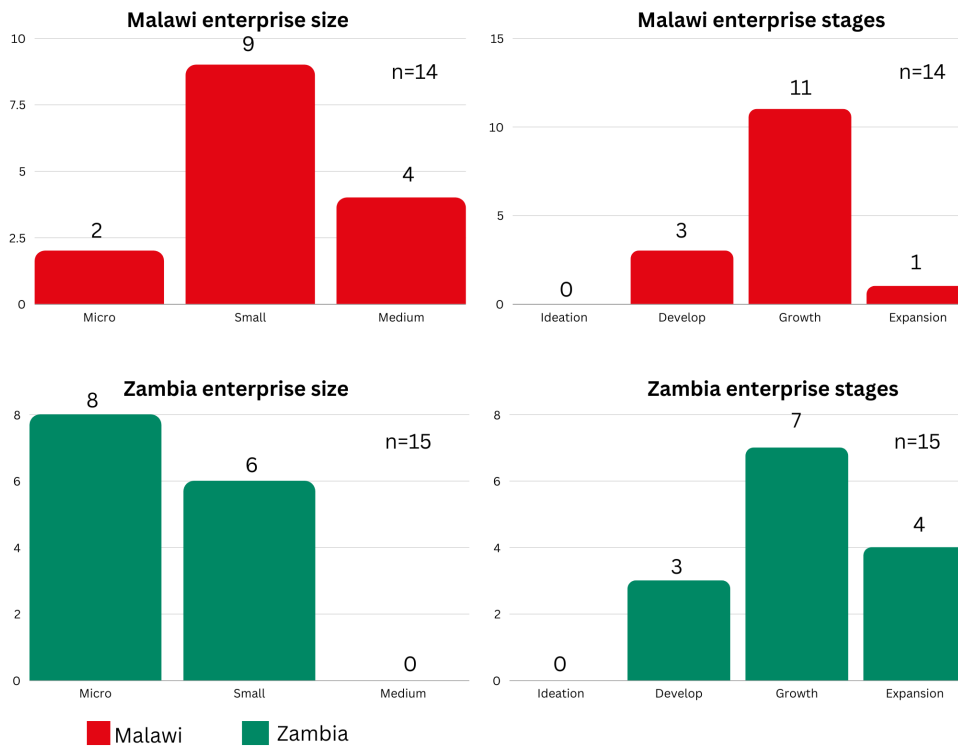


Figure 2: Enterprise size and stages in Malawi and Zambia in 2021

The products and services provided by the supported enterprises can be assigned to six main sectors. As shown below (Figure 3), sustainable agricultural production is the most dominant sector of biodiversity-positive entrepreneurship. Within this sector, enterprises provide various products and services to improve the use and availability of organic agricultural practices and technologies for rural farmers. The second most predominant sector are biodiversity-based products that, for instance, promote the reintroduction and commercial cultivation of indigenous plant species, are engaged in sustainable beekeeping or focus on non-timber forest products. The provision of resource alternatives (the third-largest sector) mostly relates to products that convert waste into an energy source, such as agricultural biomass waste that is processed into eco-briquettes and serves as an alternative to firewood. Aside from these three sectors, the remaining enterprises contributed to reforestation or were active in ecotourism and sustainable aquaculture. An example of an enterprise has been provided below to give insight to how it supports biodiversity conservation and supports local employment (case study 1).

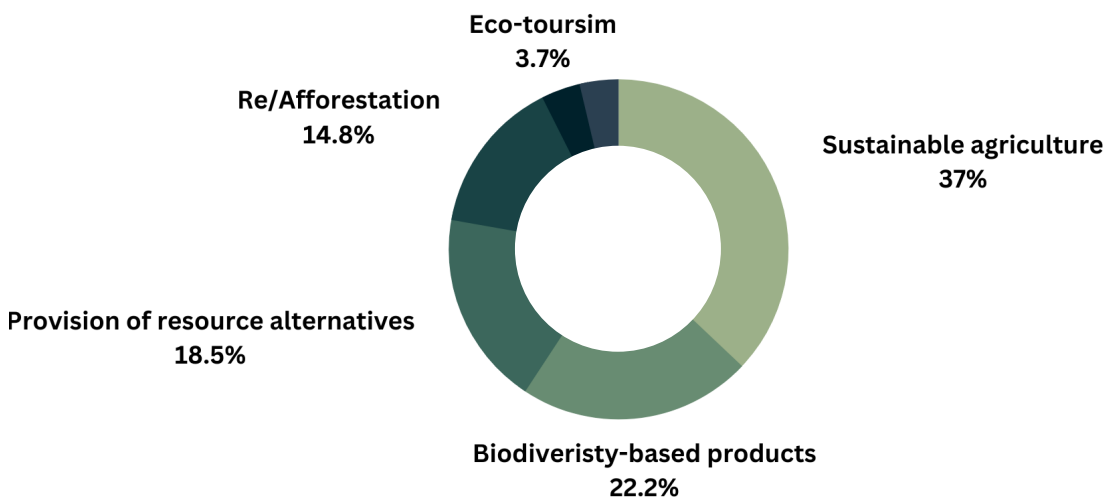


Figure 3: BioFA enterprise sectors

Forest Africa Zambia Limited



Impact on biodiversity & Society

The enterprise specializes in processing indigenous wild fruits (indigenous plant species) such as Mbuya (Baobab) and Ngai (False Medlar), producing organic and natural juices and baobab seed oil.



Biodiversity support: Conservation of endemic species



Employment opportunities: for women and youth as they function as the main suppliers of fruits.

Forest Africa Zambia ltd. began its operations around 3 years ago. The enterprise has 3 key products that all originate from wild fruits: Mbuya juice, cosmetic oils, and eco-friendly charcoal. Currently, the enterprise had an **increase of 26% in sales revenue in 2021 from its 2020 value to a total of €118,000**. In the future the enterprise hopes to grow by increasing production, diversifying products and attaining a larger market share

The enterprise currently employs 19 people on a part-time (6) and full-time (13) basis.

38.4% Women

full-time employees



69.2% youth

full-time employees



Case Study 1: Forest Africa Zambia Limited - example of an enterprise that conserves biodiversity and provides employment opportunities



3.1 MSME support for biodiversity

3.1.1. Contributing to the Aichi biodiversity targets

At the core of the business models of biodiversity-positive MSMEs is a goal towards biodiversity conservation and restoration within certain regions or sectors. As shown below in figure 4, enterprises were asked to select which (multiple selections possible) of the Aichi targets they contribute to. At the top, 72% contribute to climate change mitigation and adaptation or countered desertification. Enterprises that selected this component provide alternative energy solutions (eco-briquettes), climate-smart agricultural solutions, and produce goods that reduce rates of deforestation. Thereafter, 66% of enterprises improve the status of sustainable agriculture, aquaculture, and forestry. Within this target, enterprises generally provide agricultural products in a sustainable manner or improve the inputs for agriculture with products like organic fertilisers. 59% of enterprises take action on reducing the loss of natural habitats and reducing the rates of deforestation by providing resource alternatives or increasing the incentives for communities to maintain the natural environment.

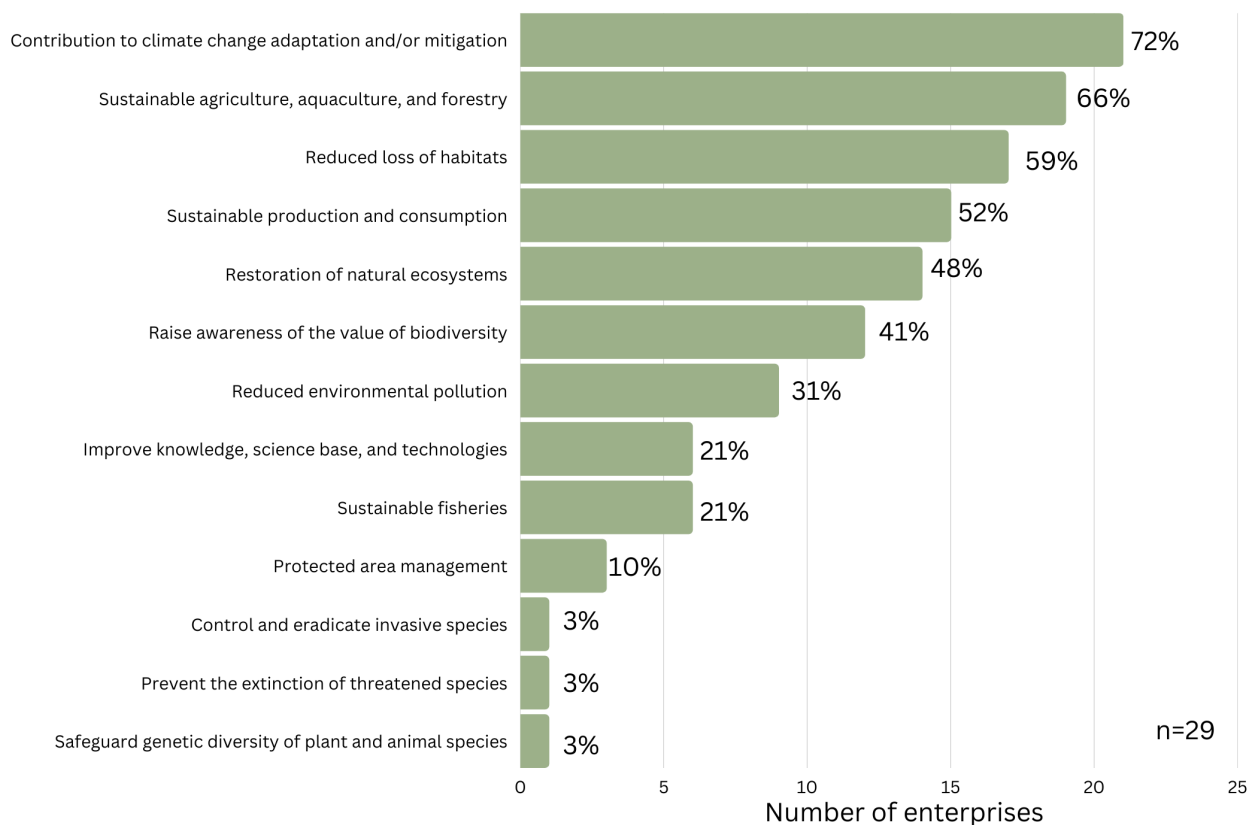


Figure 4: Enterprise contributions to Aichi biodiversity targets

3.1.2. Measuring impacts

However, despite the abundance of efforts that enterprises have taken towards improving biodiversity, measuring their actual influence on biodiversity can be challenging for MSMEs. According to this survey 89.2% of the BioFA- supported enterprises have taken action to measure and monitor their impact on biodiversity. 10.8% of enterprises did not measure their impact on biodiversity, due to a lack of monitoring tools and the high expenses involved in gathering such data. On the other hand, enterprises that did measure their impact on biodiversity would use business metrics such as volume of sales, as a proxy to determine the impact they have on biodiversity. For example, as shown in Case

Study 2, Green Care Eco Solutions measures the total volume of products sold as an indicator of their impact on reducing the number of chemical fertilisers used by farmers. Enterprises that work with sustainable cultivation/ land stewardship tend to have a direct connection to physical areas. For these enterprises, the amount of land they manage, or support is an indicator of their physical impact on maintaining biodiversity. According to the survey, 38% of supported enterprises practice sustainable cultivation and land stewardship, which translated to a total of 16,720ha.³

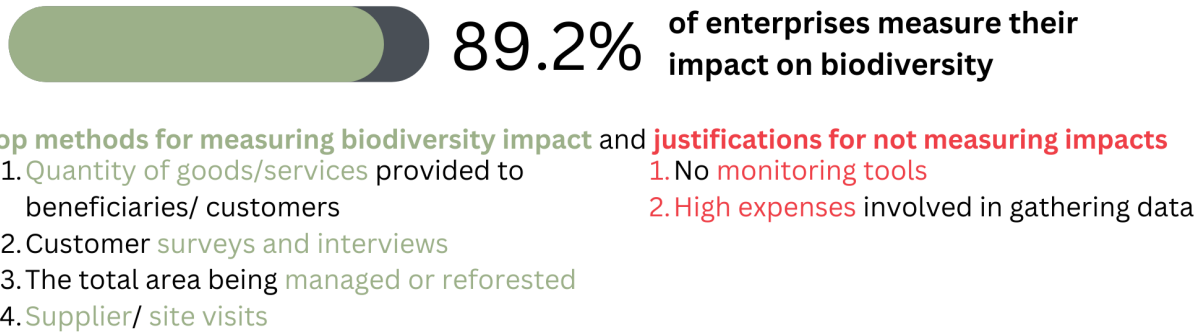


Figure 5: Top methods used to measure biodiversity impact and reasons for not measuring impacts

3.1.3. Safeguard enterprise operations

Biodiversity-positive MSMEs also take strides to ensure that their businesses do not damage the environment through harmful impacts resulting from their operations such as pollution of water sources, and high CO₂ emissions from energy consumption. 92.8% of enterprises have operationalized one of six methods of ensuring sustainable operations, as shown below. The majority of enterprises attempted to reduce their emissions by utilising green energy sources. For example, Tac-Maz Sustainable Ventures utilised solar systems for their offices, poultry houses, and irrigation systems to reduce their overall emissions. Thereafter, several enterprises utilised circular thinking and design in their project operations to ensure that their waste is reduced to a minimum or diverted back into the value chain.

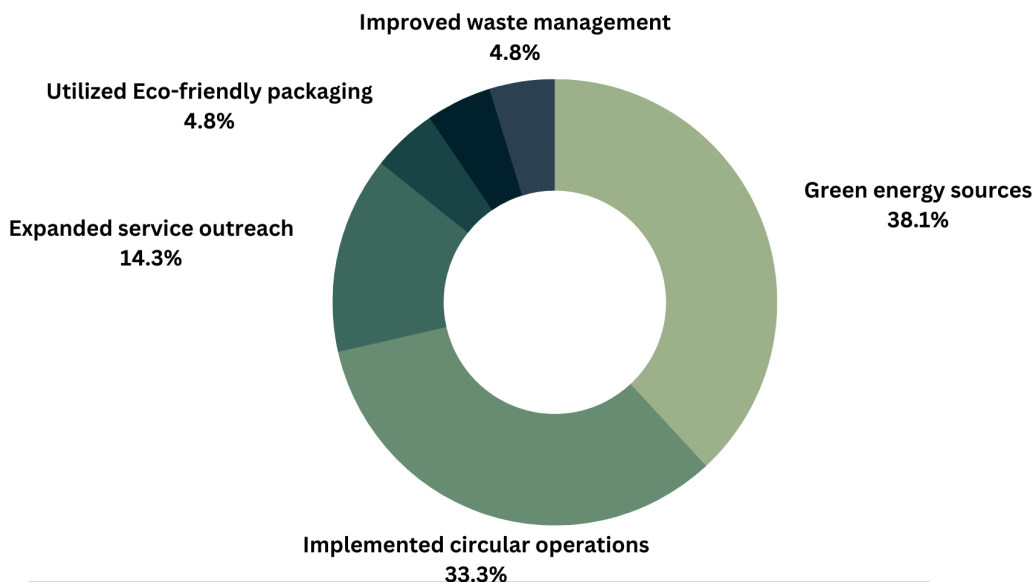


Figure 6: Enterprise methods for ensuring sustainable operations

³ The majority of enterprises manage an average of 300Ha or less per enterprise.

3.1.4. Climate change vulnerability

The enterprises supported under BioFA are highly dependent on natural resources for the success of their supply chains and production facilities. They require stable and predictable climate conditions to ensure a constant supply of their product or services. All surveyed enterprises noted that their business operations were disrupted by climate change. As shown in figure 7 below, decreased crop productivity was the main impact that enterprises experienced. Within this, enterprises noted that (a) their suppliers could not fulfil their demands for raw materials due to low crop harvests; and (b) consumers of agricultural inputs (i.e., fertilisers) would be less interested in purchasing products as they would opt for alternatives or face financial challenges to be able to afford the agricultural inputs. For example, one enterprise noted that when these climate events hampered productivity, consumers would have lower incomes and thus could not afford their fertilisers.

For the enterprises experiencing challenges with droughts, floods, desertification, extreme precipitation events, and increased food scarcity, a similar description of either supply chain disruptions was expressed. Enterprises would express that their suppliers would have difficulties moving their products or goods from rural areas to the urban spots where the goods were produced and packaged. Four enterprises noted that damages to important infrastructure had affected their facilities resulting in lower production. Greenspa enterprise noted that “floods affect the movement of products or raw materials because roads, bridges and power lines are damaged thereby delaying [the flow of goods].”

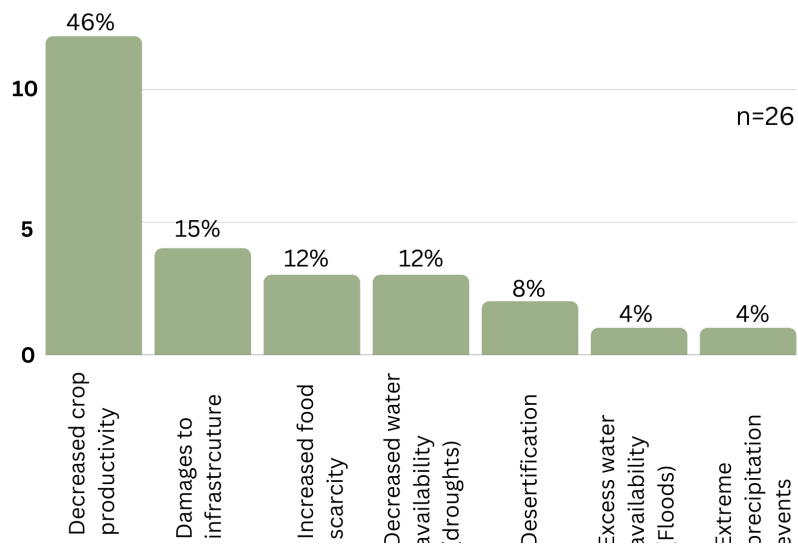


Figure 7: Climate change impacts on enterprise suppliers/customers

Green care eco-solutions



Impact on biodiversity & Society

Green care eco-solutions, based in Zambia, provides rural low-income and vulnerable communities with affordable organic fertilizers (solid fertilizers, liquid fertilizers, and growing mediums). Parallel to this the enterprise also provides climate-smart agriculture services, such as precision farming and IT integration into agriculture in order to improve the resilience and success of agricultural producers. The enterprise also creates alternative income streams for women and youth who function as sales agents, crediting them on some of their products to sell to local farms



Climate change challenges

Customers: face damages to infrastructure due to more frequent and/or severe extreme weather events

Enterprise impact: fewer customers as farmers become skeptical of the success of enterprises' products during these events.



Measuring biodiversity impact

- Quantity of fertilizers sold
- surveys customers on success of product



Biodiversity impact 2021

- Liquid organic fertilizers 2346 containers (11,730 Litres)
- Granular fertilizers 583 BAGS (17,490 kg)
- 11 Farms, 5 Agro-Dealerships & 3 Seedling Growers.

Case Study 2: Green Care Eco-Solutions - measuring biodiversity and sustainability impacts

3.2 Economic viability of the product/service offer

3.2.1. Enterprise growth rates

According to the data gathered from the impact surveys, biodiversity-positive SMEs have the potential to generate significant revenues. Despite harsh economic conditions in the last few years as a result of the COVID-19 pandemic, low economic growth rates, frequent climate shocks, and oil crises, all enterprises reported positive revenue generation between 2020 and 2021 and 86.2 % of enterprises were able to further grow their revenue (figure 8). According to this survey, enterprises were able to attain growth from two core factors: new market expansion and increased production. Enterprises explained that (a) expansion into new regions, areas, or shops allowed them to grow market share; and (b) purchasing new machinery or expanding agricultural land led to increased productivity thus increasing revenue, as can be seen in the Innoret case study below (Case study 3). On the other hand, enterprises that were not able to attain growth were not yet fully operational and were unable to withstand shocks from the COVID-19 pandemic that interrupted their supply chains or reduced customer demands.

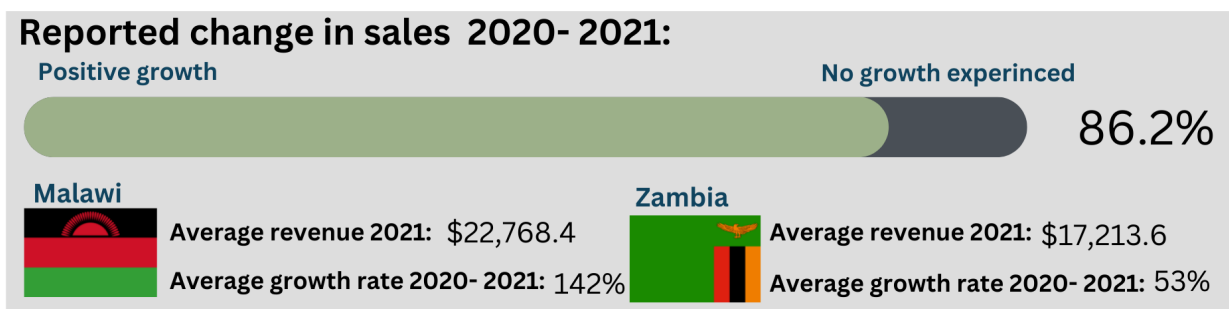


Figure 8: Reported change in sales 2020-2021

3.2.2. External funding

External funding is a crucial component to the development and resilience of SMEs, it allows them to purchase new machinery, and hire more staff, or acquire more land to improve their production. Unfortunately, in Malawi and Zambia, access to finance is barred by (a) limited access to financial institutions (i.e. banks) due to their large collateral requirements that most SMEs struggle to provide; (b) the amount of finance desired by MSMEs tends to fall within the range of USD\$10,000 – 500,000 in order to fulfil their financial requirements for growth.⁴ (c) Biodiversity-positive MSMEs' business models are yet to be recognized by conventional financiers due to their focus on social and environmental impacts and are thus perceived to be riskier investments for financial institutions.

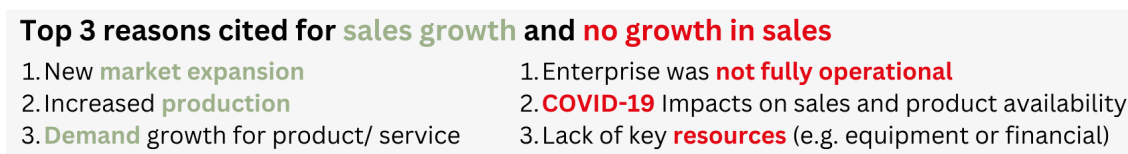


Figure 9: Top 3 reasons cited for sales growth and no growth in sales

⁴ Gutierrez et al., 2022: Filling the Missing Middle Financing Gap.

INNORET produces eco-friendly biomass briquettes, made from biomass and sawdust, that meet urban and peri-urban household cooking needs. The enterprise was able to attain an increase in sales through 4 techniques:

1. **Relocation** to an industrial area - ↑ Production
2. New faster **machinery** - 900% ↑ production rates
3. Governmental **licensing** - New markets
4. New **selling points** - New markets



Case study 3. INNORET - Methods of achieving business growth

Amongst the BioFA-supported enterprises, 39.3% were able to attain external funding in 2022 with an average value of USD\$ 16,823 with the majority of enterprises raising less than USD\$ 3,400 in financing. These enterprises predominantly attained their financing from single sources in grants or personal funding. The enterprises that received more than USD\$16,823 attained their funding from more than two sources mainly grants and personal funding. The data from this survey illustrate the substantial challenges to accessing sustainable financing faced by many biodiversity-positive enterprises. As shown in the Tac-Maz case study below, an enterprise faces several challenges to attain finance. Funding from various sources is necessary for enterprises to refine their business models, attain higher revenues and scale-up.

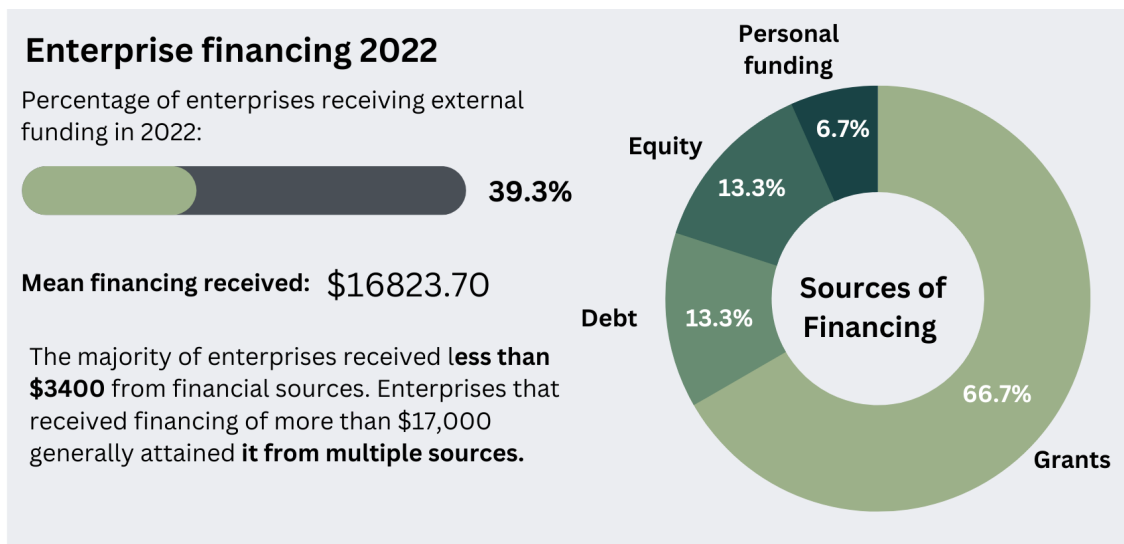


Figure 10: Overview of enterprise financing in 2022



Tac-Maz sustainable ventures



Impact on biodiversity & Society

Tac-Maz contributes to preserving soils, reducing pollution, and mitigating GHG emissions through organically grown vegetables and fruit. The enterprise also provides organic fertilizers and solar energy solutions as well as technical support to farmer cooperatives, mainly women cooperatives, to recover poorly managed land.



Biodiversity support: Restoration of degraded agricultural soils



Capacity building: in communities: technical assistance supporting women farmers to operationalise organic farming

Tac-Maz started in 2016 and developed their business from their own personal financing. The enterprise faced continuous challenges in raising finance but has overcome most of them. In the beginning, their lack of financial capacities with lending requirements restricted them from attaining more funding. However, 4 events aided their journey:

- 1) Participated in the SEED Starter program that gave them access to grants
- 2) Featured in the local press improving their outreach
- 3) Received several other grants and donations that kept them afloat during the COVID-19 period.

As a result In 2021, the enterprise increased its products by 30% due to growing demand for products, supplying \$3.900 worth of products per month.

Lack of financial management skills

Difficulties in complying with bank requirements (website, board, etc)

Heightened challenges due to the COVID-19 Pandemic

Finance secured usually comes in small amounts



Challenge with access to Finance

Case Study 4: Tac-Maz Sustainable Ventures - challenges to accessing finance, which is necessary for enterprise sustainability and scale-up.



3.3 Social inclusion and decent employment

3.3.1. Employment structures

The BioFA programme supports enterprises that create a positive impact on biodiversity, whilst still supporting communities by offering quality employment opportunities for women and youth in rural and urban areas. Relatively high employment of women and youth⁵ amongst these enterprises contributes to improving socio-economic conditions for these two groups. The majority of businesses supported by the BioFA are MSMEs, employing on average 22 people across all employment types (full-time, part-time, informal). Evidently in the table below, enterprises have on average 8 employees of which 50% are women and 75% youth. Part-time employment is a smaller component with an average of 5 employees employed per enterprise. Interestingly, these enterprises also have a high inclusion of temporary and/or informal employees, these are individuals that are not formally contracted by the organisation but rather provide services such as gathering primary resources, work on temporary projects on agricultural lands, etc. Therefore, while they do not tend to have all the employment benefits full time employees attain, they illustrate the economic connections enterprises have with communities.

Average employment opportunities




	 Average employees	 Proportion women	 Proportion Youth	Total
Full-time	8	50.12%	75.62%	230
Part time	5	47.64%	78.69%	147
Temporary/ Informal	52	48.18%	65.89%	1417

Figure 11: Average employment types amongst surveyed enterprises

The employment provided by these MSMEs is vital for improving the inclusion of marginalised and vulnerable groups. These enterprises take pride in providing employment opportunities for women, youth, and rural people who tend to have lower access to employment than the full-time workers employed by the surveyed enterprises, 50.1% of employees are women and 75.6% are considered youth. Additionally, these groups also play an important role in the organisation as employees in management positions comprise 51.7% women and 67.5% youth.

3.3.2. Quality jobs

Parallel to providing employment to women and youth, the surveyed MSMEs provide equitable and fair employment. A quality job is measured through five key components: a living wage, basic benefits, career-building opportunities, wealth-building opportunities, and a fair and engaging workplace (PCV Insight, 2016). In this study, we define an enterprise as offering quality jobs if the jobs offered at least three of the components (figure 12). The survey found that 92.8% of the BioFA-supported enterprises provide quality jobs, and only 7.2% of enterprises provide two or fewer of the quality job components. 53.6% of enterprises provide a living wage, enterprises were considered to have this component if they provided a minimum wage and equal pay for men and women in similar roles. According to the survey, 57.1% of enterprises provided a minimum wage for full-time employees and 96.4% provided equal pay for men and women; 96.4% of enterprises provide a fair and engaging workplace, which means that they provide their employees flexible and secure work conditions; 89.3% of enterprises provide their

⁵ Youth refers to people who are 30 years or younger.

employees with wealth-building opportunities, that is, their employees are provided retirement savings plans, direct debit and training for upskilling and/or promotions; 92.9% of enterprises provide at least one of the career building activities to its employees: training and/or mentorship programs including skills-based training, life skills (decision-making, problem-solving, etc), health and safety training and environmental and social performance training. Lastly, 67.9% of enterprises provide at least three basic benefits which consist of employees having paid sick leave, paid maternity and paternity leave, and health insurance as stipulated by law.

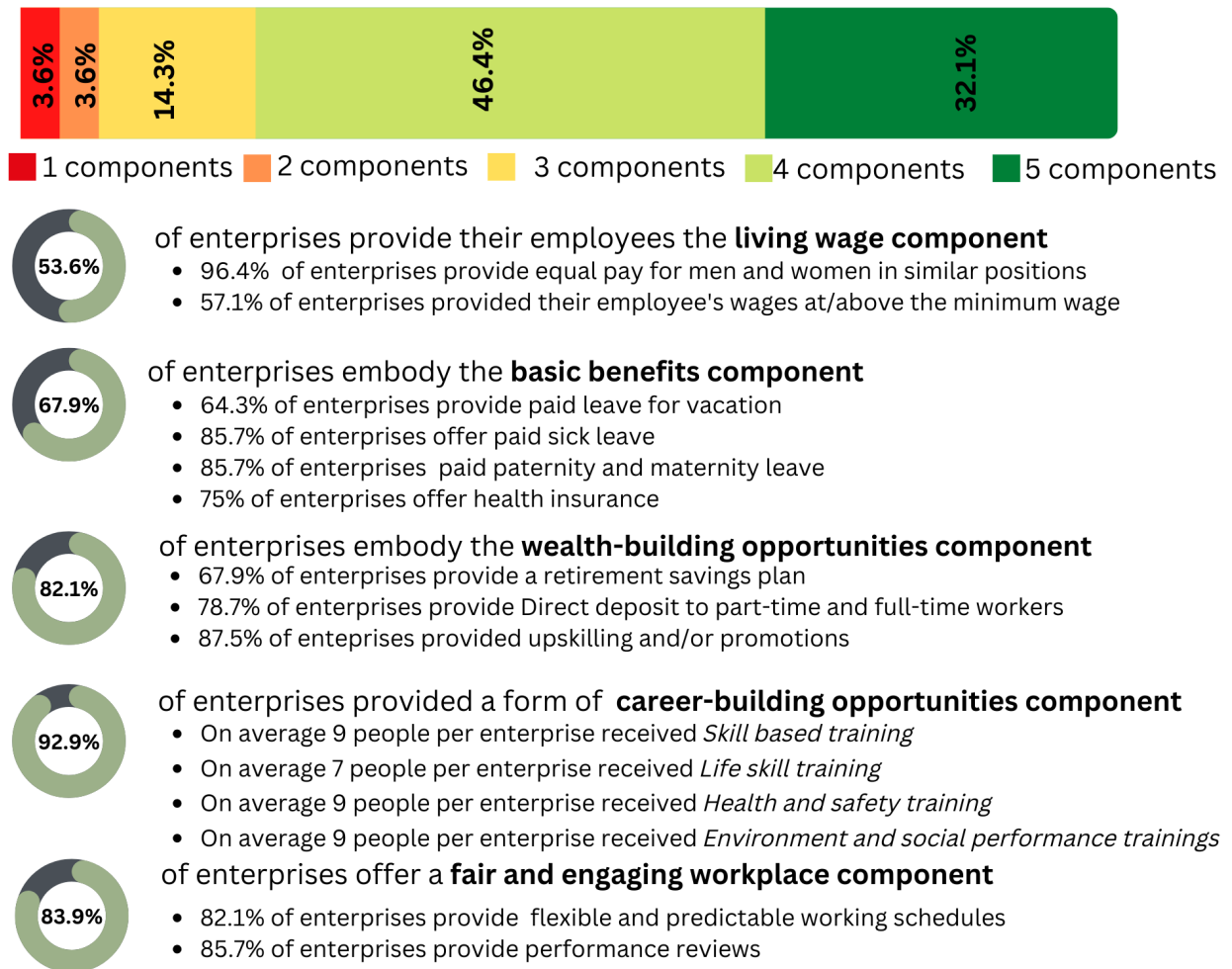


Figure 12: Share of enterprises embodying quality job principles

4. Synthesising the impact of biodiversity-positive enterprises

The impact data collected sheds light on biodiversity-positive enterprise' characteristics, challenges, growth potentials, and their specific impacts towards the management, conservation and restoration of biodiversity in Malawi and Zambia. This assessment has presented an evident image of these biodiversity-positive SMEs, predominantly driven by youth and women employees. It showcases their strong potential to generate significant and quantifiable impacts on local communities by including them in their value chain as producers, employees or beneficiaries of their products or services. As locally embedded ventures they ensure the inclusion of women and youth, striving to offer high-quality jobs despite the challenging socio-economic contexts they function within. In doing so, they provide equal pay to women and men in similar working positions, equal opportunities for upskilling, social benefits, and career promotions

In terms of biodiversity, these enterprises contribute significantly to ensuring the conservation, protection, and restoration of biodiversity. They predominantly contribute to improving the status of biodiversity by (a) providing biodiversity-based products that improve the abundance of important insects (i.e., bees), indigenous species, and trees for reforestation; (b) providing sustainable alternative resources that reduce communities demands for forest or other natural products and (c) ensuring sustainable management of aquaculture and fisheries. Additionally, these enterprises recognize the importance of safe and sustainable business operations. They have operationalized several methods to ensure they reduce their overall environmental footprint such as: reducing carbon emissions and practising improved waste management practices (i.e. reduced plastic usage in packaging, utilisation of green energy sources, water savings techniques, and circular design).

As illustrated in the insights above, the success of these enterprises is highly climate dependent. Furthermore, due to their strong environmental and social focuses, they continue to be perceived by financial institutions as high risk, creating further barriers to accessing finance compared to conventional MSMEs in the market. The findings of this impact assessment report call for further inclusion of biodiversity-positive entrepreneurship in the international dialogue on the conservation of biodiversity as well as global and national actions to accelerate green finance for climate action. It is imperative that these biodiversity-positive enterprises are recognized as key actors in the green economy transition and continue to receive financial and non-financial support from the public and private sectors.



5. References

- Bishop, J., Kapila, S., Hicks, F., Mitchell, P., & Vorhies, F. (2008). Building Biodiversity Business. London: Shell International Limited and the International Union for Conservation of Nature.
- FinMark Trust. (2019). Making Access Possible (MAP) for SMEs: Malawi Roadmap 2019.
- Gutierrez, L., Zürker, L., Kachumi N., Mwale, K. (2022) Filling the Missing Middle Financing Gap. Innovative financing for small and growing biodiversity enterprises in Zambia. Berlin: adelphi research gGmbH
- ITC. (2020). Promoting SME competitiveness in Zambia. Geneva: International Trade Centre (ITC).
- PCV Insight. (2016). Moving Beyond Job Creation: Defining and Measuring the Creation of Quality Jobs.
- SEED. (2022). Impact Insights: SEED 20-Year Flagship Impact Report. Berlin, Germany.
- The Republic of Malawi. (2017). National charcoal strategy 2017-2027. Available at: https://afr100.org/sites/default/files/Restoration_Malawi_Charcoal-Strategy_lowq.pdf
- USAID.(2022). Economic development alternatives to charcoal (A2C). . Available at: https://www.usaid.gov/sites/default/files/documents/FINAL_A2C_Fact_Sheet_OCT_2022.pdf
- Winkler, K., Fuchs, R., Rounsevell, M., & Herold, M. (2021). Global land use changes are four times greater than previously estimated. Nature communications, 12(1), 1-10.
- World Bank. (2021). Population growth (annual %) - Malawi, Zambia. Available at: <https://data.worldbank.org/indicator/SP.POP.GROW?locations=MW-ZM>



BIODIVERSITY FINANCE ACCELERATOR

MALAWI • ZAMBIA