



# THE GREEN JOBS HANDBOOK

**A comprehensive guide for starting and sustaining a  
Green Enterprise!**



Written by Green Africa Youth Organization

## Acknowledgements

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## GLOSSARY

**Circular Economy:** A model where waste is minimized and products are reused, recycled, or repaired to keep materials in use

**Green Enterprises:** Businesses whose operations or products reduce environmental impact or promote sustainability

**Green Jobs:** Jobs that help restore or protect the environment, reduce waste , or conserve resources

**Waste Diversion:** Keeping waste out of landfills through recycling, reuse, or conversion into value-added products

**Waste-to-value:** Turning waste materials into useful products or energy, contributing to economic growth and sustainability



### Acronyms and Abbreviations

CBO	Community Based Organization
CSR	Community Social Responsibility
ESG	Environmental, Social and Governance
FGD	Focus Group Discussion
GAYO	Green Africa Youth Organization
GHG	Green House gas
ICPAU	Institute of Certified Public Accountants of Uganda
KCCA	Kampala City Council Authority
KPI	Key Performance Indicator
LCA	Lifecycle Assessment
LIDS	Lifecycle Design Strategy
LLC	Limited Liability Company
MTIC	Ministry of Trade, Industry and Cooperatives
NDPIV	Fourth National Development Plan
NEMA	National Environment Management Authority
NGO	Non Government Organisation
OECD	Organisation for Economic Co-operation and Development
PPE	Personal Protective Equipment
PPP	Public Private Partnerships
SME	Small and Medium Enterprise
ILO	International Labour Organisation
SSA	Sub Saharan Africa
URSB	Uganda Registration Services Bureau

**Table of Contents**

<b><u>Acknowledgements</u></b>	<b>2</b>
<b><u>GLOSSARY</u></b>	<b>3</b>
<b><u>Acronyms and Abbreviations</u></b>	<b>4</b>
<b><u>Foreword</u></b>	<b>7</b>
<b><u>1:INTRODUCTION</u></b>	<b>9</b>
1.1 Preamble	
1.2 Aims of the Handbook	
1.3 Approach to the handbook	
1.4 Scope of the Handbook	
<b><u>2:GREEN JOBS IN WASTE MANAGEMENT</u></b>	<b>13</b>
2.1 Introduction to Green Jobs and the Global Context	
2.2 Categories of Green jobs in the waste management sector	
2.3 Policy frameworks supporting Green jobs in Uganda	
2.4 The contribution of non-State actors in creating green jobs	
2.5 Challenges facing green jobs and enterprises in Uganda	
2.5.1 Navigating regulatory and market challenges	
2.6 The need for a guide to starting a successful green enterprise	
<b><u>3:STARTING AND SUSTAINING A GREEN BUSINESS</u></b>	<b>22</b>
3.1. Minimum Requirements to meet when starting a green business	
3.1.1 Come up with a green business plan	
3.1.2 Identify a niche in the green market.	
3.1.3 Conduct Prior Market Research	
3.1.4 Assess Funding and Financing Alternatives	
3.1.5 Choose an appropriate Business Structure	
3.1.6 Understand your legal considerations and tax implications	
3.2. Sustainable Product and Service Development	
3.2.1 Designing Eco-Friendly Products	
3.2.2 Sustainable Supply Chain Management	
3.2.3 Green Packaging and Distribution	
3.3. Green Marketing and Branding	
3.3.1 Building a Green Brand	
3.3.2 Green Marketing Strategies	
3.3.3 Engaging with the Community	
3.4. Safety and risks in conducting green jobs.	

- 3.5. Getting immersed in the Green jobs sector.
  - 3.5.1 Managing and Growing Green jobs; Skills and Knowledge needed by entrepreneurs.
  - 3.5.2 Scaling a Green Jobs operations
  - 3.5.3 Measuring and Reporting Sustainability

#### **4. SKILLS AND KNOWLEDGE NEEDED FOR JOB SEEKERS**

**54**

#### **5. OPPORTUNITIES, TRENDS AND RECOMMENDATIONS**

**58**

5.1 Opportunities

5.2 Future Trends in Green Business

5.2.1 National Policy Framework and Support Systems

5.2.2 International treaties and frameworks that will drive green jobs

5.2.3 Technological Advancements

5.3 General recommendations

#### **CONCLUSION**

**67**

#### **APPENDIX: PROFILES OF SUCCESSFUL GREEN ENTERPRISES IN THE CASE**

#### **STUDIES**

**68**

Eco Brixs

Nabugabo Updeal Joint Venture

Helton Traders Ltd

Asili Kwanza Uganda LTD

Mawejje Creations

References



## Foreword

Dear Reader,

At Green Africa Youth Organization (GAYO) we have always believed that the solutions to our most pressing challenges climate change, youth unemployment, and inequitable growth — are not forged in distant boardrooms; they are born in the ingenuity of everyday people. From community composters in Kampala to solar technicians lighting up remote villages, Africans are already proving that prosperity and planetary stewardship can, and must, advance together.

That conviction sits at the core of this Green Jobs Handbook. Developed under GAYO's Zero Waste Cities project, it is designed to accelerate the diversion of waste away from our blue (water) and green (land) ecosystems, protecting biodiversity while unlocking dignified livelihoods. The handbook also draws direct inspiration from GAYO's pioneering Zero Waste Strategy, first launched in Ghana, whose community-centred model has shown how practical policy, grassroots innovation, and youth energy can combine to close the loop on materials and open new doors of opportunity. Across these pages you will discover a clear road map, Real-world lessons from waste-diversion pioneers and practical tools from funding matrices to impact-metric templates that demystify the path from concept to scale.

Why does this matter now? Because the numbers tell a simple, urgent story: Uganda's youthful population will need millions of decent jobs in the next decade, while the planet demands that those jobs be low-carbon, circular, and equitable. The choice is no longer between employment and the environment; it is about building an economy that flourishes precisely because it regenerates the ecosystems on which all life depends.

Yet policy frameworks and financial incentives, as important as they are, will never be enough on their own. We need courageous doers who see waste as raw material, sunlight as currency, and inclusion as good business. This Handbook equips you to be one of them. Whether you are a student plotting your first venture, a municipal leader seeking scalable solutions, or an investor searching for catalytic impact, you will find guidance that is both visionary and refreshingly hands-on.

And this is only the beginning. The lessons, templates, and networks captured here present a springboard to scale the Zero Waste Cities approach across Africa and beyond, proving that what works in Kampala or Accra can work in Nairobi, Lagos, and Maputo. I invite you to read with a bias for action: mark the margins, adapt the checklists, challenge the assumptions, and keep experimenting. Our experience at GAYO shows that when young people are trusted with knowledge and resources, they deliver innovations that outpace anything we could have designed for them.

Green regards,

Betty Osei Bonsu Adjei

Director Operations and Programs, GAYO



## Foreword

Dear friends,

This publication, at its core, examines systemic approaches to minimise the impact of waste—something we at GAIA believe is essential to achieving a zero waste society. GAIA is a world-wide alliance of more than 800 grassroots groups, non-governmental organisations, and individuals in over 90 countries whose ultimate vision is a just, toxic free world without incineration. Our mission is to catalyse a global shift towards environmental justice by strengthening grassroots social movements that advance solutions to waste and pollution.

At the centre of our approach is to look at how waste can be prevented rather than searching for a cure. The reduction of waste being generated must always be the first step but in instances where we are subjected to waste colonialism practices, often seen in the Global South, where we are less in control of the waste that is being produced, innovative practices to reduce the impact of this waste on our communities are essential. GAYO, in this publication, has demonstrated how this problem can be addressed by implementing systems that create jobs from what would otherwise be waste.

This publication demonstrates the experiences in Uganda and these have been further shown to have genuine benefits in Africa and the rest of the world. Our 2021 publication titled *Zero Waste and Economic Recovery: The Job Creation Potential of Zero Waste Solutions* demonstrates that other sectors within zero waste systems are much more beneficial than jobs in “end of pipe” sectors like landfilling and incineration. The reuse economy creates over 200 times as many jobs, while the recycling sector creates around 70 times as many jobs. Remanufacturing also creates almost 30 times as many jobs as landfills and incinerators.

As you read this publication, keep in mind that there is so much potential for us to collectively build a zero waste society and create healthier jobs that need to be enabled and supported by global efforts to reduce plastic production, recognition and integration of waste pickers and rejecting false solution technologies like incineration, pyrolysis, chemical recycling and other thermal treatment of waste.

Let us continue the fight to stop waste colonialism, but let us never lose ambition to innovate and demonstrate our resilience as Africans.

A luta continua!

Niven Reddy

Africa Regional Coordinator

GAIA



## Opening Remarks

Dear reader, as we navigate an era defined by environmental urgency, economic transformation, and technological innovation, one truth becomes increasingly clear: the future of work is green.

Across industries and sectors, we are witnessing a profound shift and collective realization that sustainability is not just a value but a necessity. The rise of green jobs is reshaping the labor market and redefining what it means to build a career with purpose. This handbook is a guide to that future. It offers more than job descriptions or industry insights;



It provides a roadmap to meaningful, impactful work in the green economy. Whether you're a student exploring your path, a professional seeking to transition, or a policymaker shaping the workforce of tomorrow, the tools and stories within this book will equip you to take action.

Green jobs span an extraordinary range of skills, disciplines, and sectors from renewable energy to regenerative agriculture, sustainable finance to circular design but this particular handbook is well tailored for solid waste management. At their core, green jobs align economic opportunity with ecological responsibility.

We stand at the threshold of a new kind of prosperity that values resilience, inclusivity, and stewardship. This handbook is a testament to the people and ideas leading the charge and an invitation for each of us to contribute to a more sustainable and equitable world. Welcome to the journey, the future is green and it starts with you.

Green regards

Isaac Ndyamuhaki

GAYO Uganda Programs Manager



# 1: INTRODUCTION



## 1.1 Preamble

This Green Jobs Handbook equips youth, entrepreneurs and green innovators with practical knowledge on starting and sustaining environmentally friendly businesses, especially those focused on waste diversion. While tailored to Uganda, the guide also applies across Sub Saharan Africa (SSA) and can be adapted for green enterprises in other sectors. The handbook also offers strategic insights for policymakers, community leaders, research institutions, and partners working to grow Uganda's green economy.



## 1.2 Aims of the Handbook

This Handbook is developed to guide and empower green enthusiasts to start, grow, and sustain green enterprises that reduce environmental harm and create decent green jobs. The specific objectives are:

- To provide a step-by-step guide to starting and managing a green enterprise in Uganda
- Assess the supporting environment for small and medium scale green enterprises in Uganda

- Explore challenges hindering survival of green enterprises, opportunities available and projected trends of green enterprises in Uganda.
- Promote the adoption of sustainable waste management practices while creating decent jobs and safe working conditions.



## 1.3 Approach to the handbook

This handbook was developed through a multiple case study of the operations of small and medium-sized green enterprises in Uganda, and extensive stakeholder engagements with community representatives and national institutions within the waste value chains. A total of Six green enterprises involved in waste management were interviewed in the case studies. Quantitative data was collected from all six enterprises through a structured questionnaire. This was supplemented by qualitative data from interviews with the team leads or their representatives within five of these enterprises. Representatives of government institutions (2), CBOs (4) and informal waste workers (60) were also engaged.

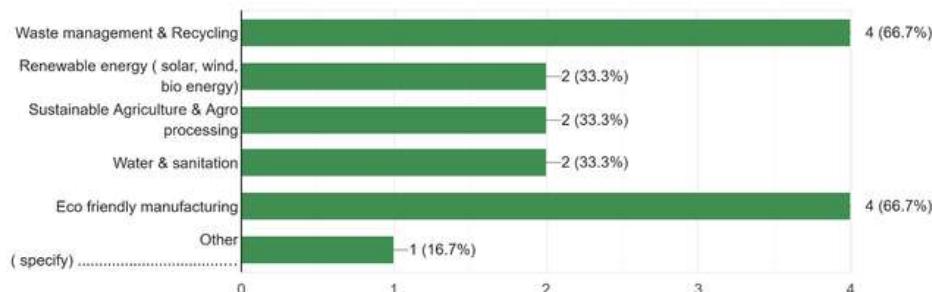


Building environmental skills among youth is essential for a sustainable community

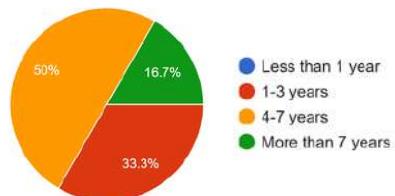
The green enterprises provided insights on the strategies they employ to drive innovation and ensure business sustainability at least beyond five years (Kabatunzi, 2022), all while adhering to the principles of a green economy.

The chart below shows the description of the engaged enterprises within the general green jobs sector..

What sector does your enterprise operate in?



How long has your enterprise been in operation?



What is the size of your enterprise?

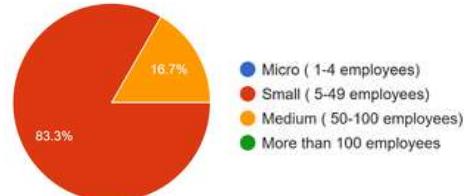


Chart 1:

Organizational attributes of the green enterprises engaged for the case studies.

Key information on safety and risks in green jobs was obtained from a Needs Assessment conducted among informal waste workers at the Kittezi Landfill. The study conducted by the Green Africa Youth Organization at the now-closed Kiteezi Landfill exposed critical safety failures affecting informal waste workers. The workers played a critical role of sorting waste at the landfill, which would receive over 40% of the solid waste from Kampala City and metropolitan areas, yet the working conditions were unsafe and hazardous. Data was collected through a focus group discussion involving 60 informal waste workers, among whom were representatives of four CBOs (Women's Hope Group, Teeka Sente Wolaba, Basoga Nseete Savings Group, Bagishu-Bamasaba Association).

In this report, recommendations were made on how to make their work safer, and adoption of these recommendations for similar green jobs was assessed for this Handbook. This Green Jobs Handbook development also relied on data from government institutions including NEMA, Ministry of Water and Environment, KCCA, Ministry of Finance, Planning and Economic Development, and Ministry of Gender, Labour and Social Development provided knowledge on current policies and programmes that facilitate adoption of green jobs. Community Based Organizations which work directly with local communities, informal waste workers and low scale recyclers provide local expertise on challenges, best practices, and opportunities in waste diversion, and knowledge on policy interventions and training that can create or hinder green jobs in the community.

There was also an extensive desktop review of existing literature on small and medium scale green enterprises in Uganda and practical approaches from the global perspective were also assessed.

Table 1: Key literature consulted in preparing the Green Jobs Handbook

Name of Publication	Publication type	Journal / Publisher
Green Jobs and Business Models	Book Chapter	Introduction to Green Science and Technology for Green Economy
Green Jobs - A Literature Review	Article	International Journal of Environmental Health and Public Health
Greener Skills and Jobs	Article	OECD Green Growth Studies
Green Jobs	Book Chapter	The Economics of Sustainable Development
Policy frameworks in Green Jobs	Book Chapter	The Palgrave Handbook of Environmental Policy and Law
Creating Green Jobs in Developing Countries	Report	Institute of Developmental Studies
The Uganda Green Growth Development Strategy 2017/2018 - 2030/2031	Report	National Planning Authority, Uganda
Zero Waste Strategy Ghana	Report	Green Africa Youth Organization
Green Jobs for Women in Africa: Country Report for Uganda	Report	African Development Bank
Skills for Green Jobs in Uganda	Report	International Labour Organization



#### 1.4 Scope of the Handbook

The handbook gives a strategic direction to enthusiasts of green entrepreneurship and development of business driven green economy within the waste management industry. It provides insights into the sustainability and highlights potential barriers and the challenges in the green jobs sector. It presents the skills, training and qualifications required to navigate and excel in running a green enterprise or pursue green jobs. This handbook also projects into the future casting a spotlight on opportunities available for growth of the green economy and green jobs in the waste management sector. This scope is extensively covered through engagement of stakeholders ranging from private sector, government, Civil society organizations and Waste pickers who were adequately engaged in the entire development of the handbook.

While its core emphasis is on waste management, the content directly resonates with adjacent green sectors such as eco-construction, renewable energy, sustainable agriculture, and green logistics.

This handbook serves as both a practical guide and a strategic resource, supporting the transition to a green economy by enabling youth-led innovation in sustainable waste management and beyond.

Practical steps for advancing green enterprises include mapping your ecosystem, developing skills, storytelling, impact tracking, and fostering collaborations to support sustainable growth

## 2. GREEN JOBS IN WASTE MANAGEMENT

### 2.1 Introduction to Green Jobs and the Global Context

According to UN-ILO (2016), green jobs are defined as positions in agriculture, manufacturing, research and development, administrative, and service activities that contribute substantially to preserving or restoring environmental quality. Specifically, these jobs aim to help protect ecosystems and biodiversity, reduce energy, materials, and water consumption through high-efficiency strategies, decarbonize the economy, and minimize or altogether avoid the generation of all forms of waste and pollution (Yi, 2013; Consoli et al., 2016). Green jobs help to improve efficiency in energy and raw material use, limit greenhouse gas emissions, reduce volumes of waste created and volumes brought to landfills, reduce environmental emissions and protect and restore ecosystems.

The triple planetary crisis - climate change, pollution and biodiversity loss has created an urgent need for alternative lifestyles, resources and processes to control, reduce or, if possible, eliminate the effects of human activities on the environment, hence the transition to a green economy. The concept of a green economy involves promoting human well-being and social equity, and reduced environmental risk and ecological scarcities (Karakul, 2016; Musango et al., 2014).

Uganda, with its diverse ecosystems and natural resources, is well-positioned to leverage green jobs for sustainable development (Loiseau et al., 2016). Creation of green jobs, and greening of existing non-green jobs has progressed significantly in African countries including Uganda (Otieno & Ochieng, 2018), but little efforts have been focused on the waste management industry, and even much less in the enterprises involved in diversion of waste from landfills. The contribution of green enterprises in the pursuit for a green economy can not be overlooked due to the potential of its young entrepreneurial population.

### 2.2 Categories of Green jobs in the waste management sector

Green jobs in the waste management and broader environmental sector go beyond traditional recycling and composting. They span across a range of innovative and sustainable practices that create employment while preserving environmental health. The list of green jobs below is not exhaustive but presents the most dominant green enterprises in the waste management, and closely related sectors in Uganda.





## Waste Recycling

Jobs in sorting, processing, and remanufacturing recycled materials such as plastics, paper, metals, and glass.



## Waste Composting

Roles in compost facility operations, organic waste collection, and soil enhancement services for agriculture and landscaping.



## Upcycling

Creative employment opportunities in design and production by transforming discarded materials into higher-value products (e.g., fashion, furniture, homeware).



## Solar Energy Installation and Maintenance

Jobs in installing and maintaining solar panels, especially in underserved and off-grid communities, supporting the clean energy transition.



## Briquette Production (Alternative to Charcoal)

Involves converting agricultural and organic waste into clean-burning fuel. This offers a sustainable energy alternative and job creation in production, distribution, and marketing.

**Note:** This is distinctly different from incineration and should not be confused with it.



## Electronic Waste (E-Waste) Recovery

Skilled jobs in collecting, repairing, repurposing, or responsibly dismantling and recycling electronics.



## Plastic Waste Upcycling and Reuse

Employment in turning plastic waste into durable goods like paving blocks, roofing tiles, or school furniture.



## Green Logistics and Circular Economy Innovation

Emerging roles in designing reverse logistics systems, circular business models, and platforms that facilitate material reuse and sharing.



waste collection activities, illustrating grassroots efforts in waste diversion and environmental conservation.



### Environmental Education and Awareness

Jobs in community engagement, training, policy advocacy, and awareness campaigns focused on sustainable practices.



### Waste Collection and Sorting (Formalizing Informal Sector Work)

Dignified and safer jobs for waste pickers through integration into formal systems, improving working conditions

## 2.3 Policy frameworks supporting Green jobs in Uganda

The core principles of a green economy are mainstreamed in a number of government policies, laws, plans and programmes, including the Constitution of Uganda 1995, the Uganda Vision 2040, the fourth National Development Plan (NDPIV) , the Updated Nationally Determined Contribution 2022, the National Climate Change Policy 2015 and the National Climate Change Act 2021. The Green Growth Development Strategy 2017/18 – 2030/31 was instituted to operationalize these core principles. The key strategies implemented by the Government include investing in renewable energy and clean technologies, promoting eco-friendly farming techniques and value-added agricultural processing, and developing ecofriendly infrastructure. Notably, NDPIV seeks to prioritize value addition in productive areas with great potential for socioeconomic transformation, a key component of green enterprises. A key strategy of NDPIV is to promote local content particularly for Micro, small and medium scale enterprises.

With a predominantly young and growing population, Uganda faces significant challenges in providing quality employment. Implementation of green growth strategies has the potential to generate 4 million jobs and to spur economic growth by an additional 10 percent above the Business as Usual scenario. It can also reduce greenhouse gas emissions by 24.7 percent by 2030 (Uganda Green Growth Development Strategy 2017/2018 - 2030/2031). Despite this impressive policy landscape, it is widely acknowledged that poor implementation of existing policies and laws stands out as the biggest challenge to the country's transition to a green economy (Kaggwa & Namanya, 2018).



Young professionals collaborating on innovative waste-to-value projects, emphasizing the role of technology and innovation in green jobs



## 2.4 The contribution of non-State actors in creating green jobs

To complement the efforts by the Government of Uganda, several non-State actors including private sector-driven and local interventions have been instituted by aggressive entrepreneurs. The Global Entrepreneurship Monitor 2019/2020 and Approved Index, a UK-based business-networking group ranked Uganda as one of the most entrepreneurial countries in the world with 30 percent of Ugandans starting businesses annually with the most entrepreneurs per capita. Although Uganda ranks highly for entrepreneurship, most startups (54%) fail to survive beyond five years and 28% of SMEs are less than a year old (MTIC, 2019) due to several complexities.



## 2.5 Challenges facing green jobs and enterprises in Uganda

The following are some of the challenges which not only hinder the takeoff of new green enterprises, but also affect the success of young already established enterprises.

### 1. Limited access to financing

Many green start-ups in Uganda struggle to secure funding due to:

- A lack of tailored financial products for sustainable businesses.
- Risk-averse investors unfamiliar with green business models.
- High interest rates from local banks and microfinance institutions.



Implementing sustainable manufacturing practices to reduce waste and energy consumption, exemplifying the essential role of green businesses in building a resilient green economy

### Asili Kwanza on financing challenges:

Asili Kwanza Uganda's challenge has been largely on scaling up operations partially because of inadequate financing which has made the enterprise lag behind the available demand of the products. To cope up with this challenge, we have formed partnerships with other sector players including raw material suppliers and producers of briquettes. This has enabled leveraging of resources and networks to keep production going. Other partnerships have been with Civil society organizations that provide linkages to sources of funding, markets and technical capacity. This has overtime enhanced our efficiency and growth.



## 2. Low public awareness and market demand

Eco-friendly products and services often require consumer education. In Uganda:

- Many consumers prioritize affordability over sustainability.
- There is limited awareness of the long-term benefits of green alternatives.
- Market size for green products is still developing.

## 3. Inadequate policy support

While Uganda has policies supporting green growth, implementation gaps persist:

- Bureaucracy and inconsistent enforcement discourage innovation.
- Lack of tax incentives or subsidies for green businesses.
- Policies may favor large companies or foreign investors over local entrepreneurs.
- High costs associated with company registration and weak policies promoting local manufacturing and components hinder progress leading to increased operating costs

## 4. Limited technical knowledge and skills

Green entrepreneurship often involves specialized knowledge:

- There is a shortage of trained professionals in areas like renewable energy, waste management, and sustainable agriculture.
- Access to specialized education, technical training, mentorship, and capacity-building programs is limited. There are few institutions teaching innovation.

## 5. Infrastructure challenges

Infrastructure gaps make it hard for green businesses to scale:

Poor transportation and energy infrastructure affect supply chains.

- Rural areas where many green innovations are most needed, often lack electricity or internet connectivity.
- Limited access to modern technology and specialized expertise to scale operations

## 6. Cultural and behavioral barriers

Adopting green practices often requires mindset shifts:

- Traditional practices rooted in Uganda's population often limit consumption of green products..
- Misconceptions about new technologies (e.g., solar or biogas) can slow adoption.

Nabugabo Updeal Joint Venture has faced challenges like limited funding, community engagement gaps, and inefficient waste segregation. We've overcome these through strategic partnerships, public awareness campaigns, and innovative technologies like Black Soldier Fly larvae for organic waste recycling, enhancing sustainability, operational efficiency, and stakeholder collaboration across Kampala's waste management ecosystem.

### Nabugabo Updeal



7. There is a shortage of appropriate and affordable raw materials and equipment for small-scale manufacturing.

8. Limited interaction between start-ups, micro, small, and medium-sized enterprises and larger firms results in missed business opportunities.

Together, these barriers form a complex web of challenges that need to be addressed to unlock the full potential of green jobs in Uganda, making it imperative for stakeholders across the board to collaborate towards fostering a more conducive environment for green job creation and growth.



### 2.5.1 Navigating regulatory and market challenges



- To overcome these challenges, support systems must be strengthened for SMEs in the green sector.
- Support for micro, small, and medium enterprises (MSMEs) through enhanced financial management is of paramount importance. This support encompasses the utilization of banking services like green loans, grants and guarantees tailored specifically for small green enterprises.
- Providing technical assistance for financial institutions to better serve the needs of green SMEs.
- The development of vocational and educational programs that emphasize the skills necessary for these sectors is critical. In the short term, international development partners, in collaboration with government entities, can facilitate the establishment of concise training programs aimed at enhancing the competencies of current employees within green industries (IGGE, 2021).
- Additionally, it is imperative to expand access to modern technology and renewable energy sources in order to satisfy the increasing energy demands associated with production processes.
- It is essential to prioritize initiatives that promote job creation and income generation while simultaneously addressing poverty alleviation, as such initiatives are more likely to garner governmental interest for future implementation.

## 2.6 The need for a guide to starting a successful green enterprise

1. While many policies in Uganda acknowledge the potential of a green economy to address both issues - climate change and youth unemployment - practical support for starting and sustaining green enterprises remains limited. Most existing guides are either global in scope or too general to be actionable at the local level. As a result, many young people with green business ideas lack the contextual knowledge, tools, and mentorship needed to turn those ideas into viable enterprises.

1. It is imperative for all stakeholders to appreciate the need to transition from the traditional economy (the current economy) to the green economy. The table below summarises the differences between the traditional approaches to economics and the green economic approaches.

Table 2: Differences between traditional and green economy approaches (Source: Mistra, 2014)

Traditional economy	Green Economy
GDP growth: More economic activity as the aim	Beyond GDP: Prosperity as the aim
Focus on the near future (Short-termism)	Long-termism (Safeguarding of long term)
Shareholder value: Maximization of returns	Stakeholder value: Benefit to Society
Extraction of Natural Resources	Management of Natural Resources
Linear Production systems	Circular Production Systems
Short-life Products for sale	Long-life Services: the 'Performance economy'
Efficiency measured in monetary terms (such as cost-benefit analysis)	Multidimensional efficiency (multi-criteria analysis)
Micro- and Macro-rationality highly divergent	Micro- and Macro-rationality highly congruent

This means that all stakeholders need to be equipped with the necessary skills to fit within the green economy, the internal policies have to be favourable, planning and implementation has to be congruent, so as to come up with decent green jobs. This handbook addresses this need.

3. Despite being ranked among the most entrepreneurial countries globally, Uganda sees over half of its startups fail within five years. In the waste management sector, especially in informal and semi-formal enterprises, this failure rate is even higher. Key reasons as highlighted include limited access to financing, regulatory hurdles, lack of technical or business skills, and a general lack of awareness about viable green opportunities. The need and opportunity are undoubtedly as waste is generated in every community, and its mismanagement has direct impacts on health, climate, and livelihoods. Green enterprises that convert waste into value, through recycling, composting, upcycling, or clean energy can create jobs, reduce pollution, and support Uganda's transition to a green economy. While there are a number of guides addressing the transition to a green economy (Maclean, 2018; Davidson et al., 2024), many focus on general concepts and global perspectives with no guide specific to the waste diversion sector in Uganda or Sub Saharan Africa. This handbook is a valuable resource with relatively comprehensive information on all the nitty gritties for an enthusiastic green entrepreneur looking to establish a green business in this region.



### 3. STARTING AND SUSTAINING A GREEN BUSINESS

This section presents the key steps an entrepreneur should take when starting a green business, and key considerations to ensure sustainability and success of the business.

#### 3.1. Minimum Requirements to meet when starting a green business

Our study revealed that many green enterprises like any other business conduct a feasibility study before fully launching. However, the specific factors they assess vary by enterprise, with some elements appearing more frequently than others as shown in Fig. 1 below.

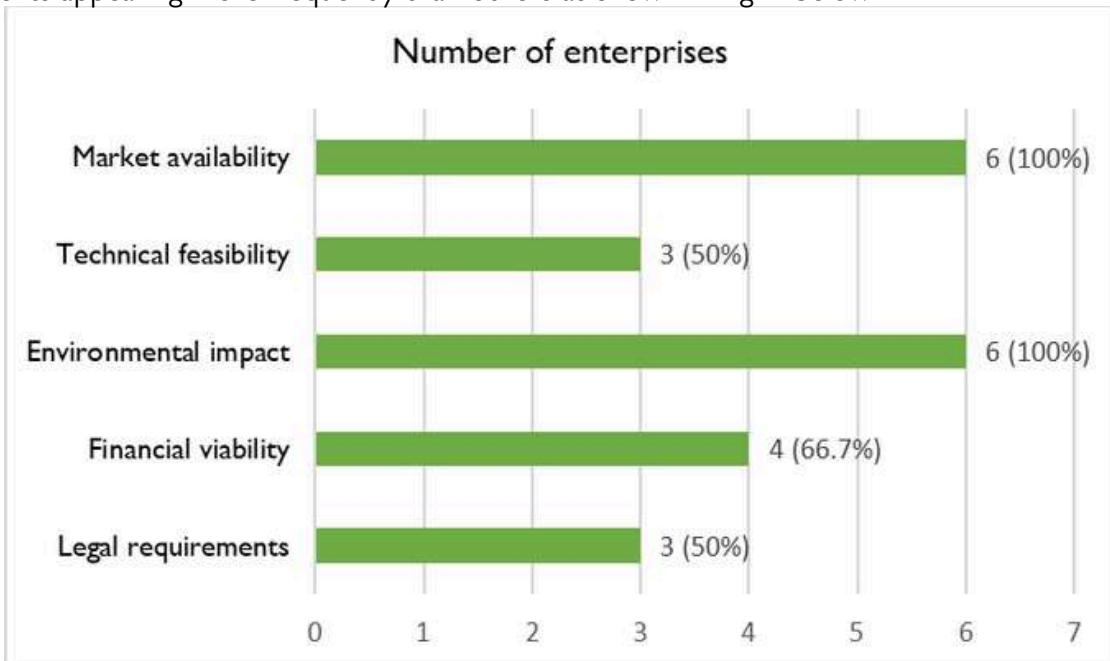


Figure 1: Key aspects assessed by green enterprises during the feasibility studies

In this section, we present the crucial requirements an entrepreneur must look out for before starting a green business.



Small-scale enterprises play a crucial role in waste diversion and recycling efforts

### 3.1.1 Come up with a green business plan

Many entrepreneurs shy away from preparing business plans as an initial step to starting an enterprise due to several reasons including lack of knowledge on how to write a business plan, let alone understand its importance. Simply put, for an entrepreneurial mind, a business plan is a document that answers two questions; What action will be taken, and how it will be implemented.

A well-structured business plan is a crucial foundation for any green enterprise because it not only serves as a roadmap for business operations but also attracts investors, partners, and stakeholders who share a commitment to sustainability. When developing a green business plan, entrepreneurs must consider key components that align financial success with environmental, economic and social responsibility. A well-prepared green business plan not only ensures operational efficiency but also strengthens credibility among investors, partners, and regulatory bodies.

With a well structured business plan the entrepreneur can take an objective, critical, and unemotional look at the whole business (Naumova, 2023). For a green business, it is important to integrate sustainability into the core business strategy for long-term success. While there is no standard format for a green business plan, we find that most of the plans from the case studies in this handbook align with the format given below:

**1. Executive Summary:** This section provides a concise overview of the business, including the mission, vision, and objectives. A green business should clearly articulate its commitment to sustainability and how it addresses specific environmental or social issues.

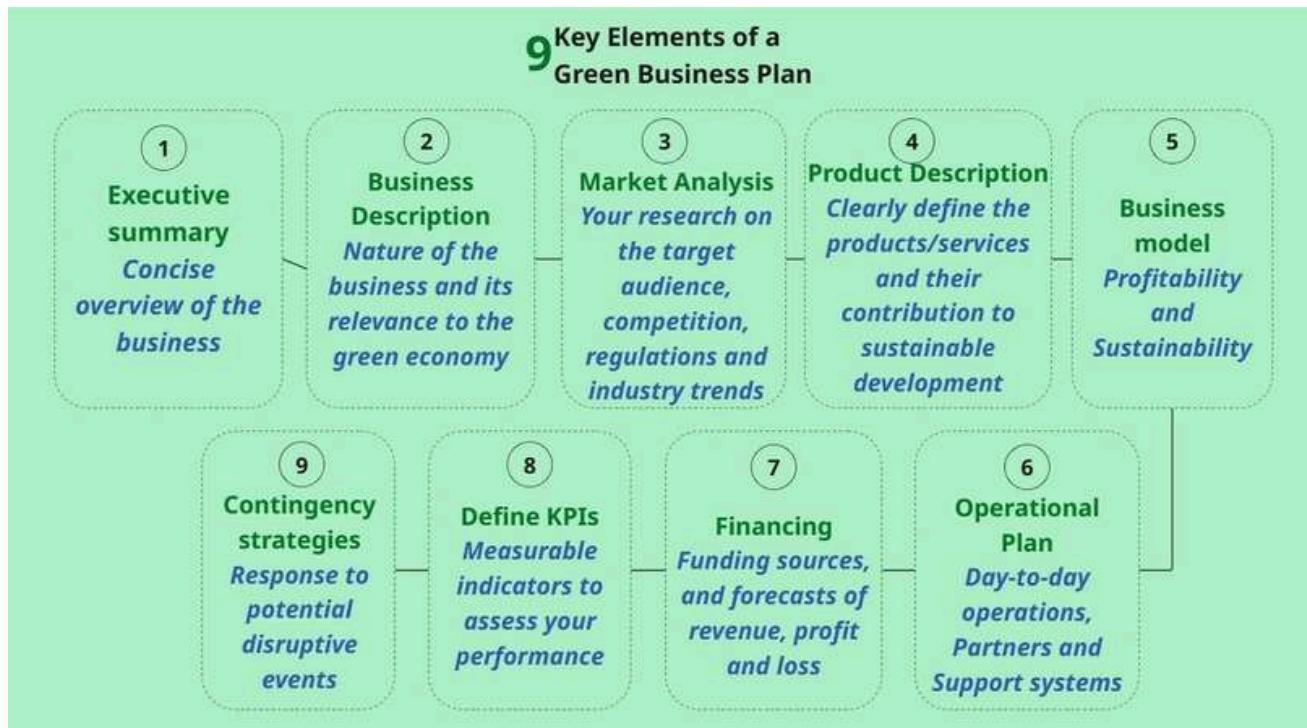
**2. Business Description:** Define the nature of the enterprise and its relevance to the green economy. Whether it is renewable energy, organic farming, or waste management the business description should highlight the sustainable aspects of the enterprise and how they align with market needs.

**3. Market Analysis:** A comprehensive market analysis identifies the target audience, competition, and industry trends. The market analysis should also appreciate the regulatory framework and potential government incentives that can support the growth of the enterprise.

**4. Product Description:** Clearly define the products or services and their environmental impact. Explain how these offerings contribute to sustainability, such as reducing carbon footprints, minimizing waste, or conserving natural resources. Highlight any certifications, eco-labels, or standards the business adheres to.

5. **Business Model and Revenue Generation:** Outline how the business will generate income while maintaining sustainability goals.
6. **Operational plan:** Describe the day-to-day operations, supply chain considerations, and sustainable production methods. For example, an eco-friendly packaging company should detail how it sources biodegradable materials and minimizes energy consumption.
7. **Financial projections and funding:** Provide revenue forecasts, profit and loss statements, and funding requirements. Entrepreneurs should explore financing options such as green loans, impact investors, and government grants that support eco-friendly initiatives.
8. **Define key performance indicators (KPIs):** that measure environmental and social impact. This could include reductions in carbon emissions, water conservation, or community development efforts.
9. **Contingency strategies;** are included in a business plan in case of uncertain outcomes. This is a crucial aspect, yet often overlooked by many enterprises during the planning stage as shown by our study, with only one enterprise developing a contingency strategy.

Figure 2. The key elements of a green business plan (Compiled by GAYO, 2025)



During the preparation of the business plan, developers should have in mind at least three perspectives, independent of its user;

- Perspective of the entrepreneur. The entrepreneur is the most capable to explain the essence of the business venture because he best understands its concept and idea, as well as the processes and technology of operation;
- Market perspective. During the formation of the business plan, operations should be seen through the eyes of buyers, that is, consumers;
- Investors' perspective. Investors expect the business plan to provide realistic and reliable projections of financial indicators, such as: income, expenses, cash flow, financial result, etc.

Businesses that plan, grow 30% quicker than those that do not (Burke et al., 2010)

### 3.1.2 Identify a niche in the green market.

With the increasing global focus on sustainability, finding a niche within the green market is essential for differentiation and success. One way of leveraging the untapped opportunities in the green economy is by identifying specific market gaps that align with local needs and global sustainability trends. An assessment of the existing green businesses enables an entrepreneur to understand the local landscape, pressing environmental issues, customer preferences, emerging green trends, government policies supporting green businesses, as well as untapped opportunities. Once a niche is identified and selected, pilot projects and small-scale trials help assess the feasibility of a niche business. Engaging with target customers and obtaining feedback ensures that the product or service meets market expectations.



A diverse group of entrepreneurs and workers collaborating in a training session focused on developing skills in waste processing technologies

### 3.1.3 Conduct Prior Market Research

- ◆ All the enterprises engaged in this study unanimously agreed to having conducted a market feasibility assessment prior to commencing their operations. Understanding market demand is crucial for any green enterprise to succeed. Entrepreneurs must assess consumer preferences, industry trends, and economic factors that drive the demand for eco-friendly products and services. By continuously analyzing and responding to demand drivers, green businesses can develop effective marketing strategies and expand their reach in the sustainability sector.
- ◆ Consumer awareness and preferences: Many consumers are becoming increasingly conscious of environmental issues and seek sustainable alternatives. Understanding what drives consumer behavior, whether it is health concerns, ethical considerations, or cost savings, can help businesses tailor their products to market needs.
- ◆ Government policies and incentives: Policies such as bans on plastic bags, tax incentives for renewable energy, and subsidies for waste management play a significant role in shaping demand. Entrepreneurs should align their business models with these regulations to maximize growth opportunities.

Corporate and institutional demand: Many businesses and institutions are integrating sustainability into their procurement policies. Green entrepreneurs can tap into this demand by offering sustainable solutions such as eco-friendly packaging, renewable energy sources, or waste management services.

Economic considerations: The affordability of green products and services affects demand. Entrepreneurs should explore cost-effective production methods to make sustainability accessible to a broader market while ensuring profitability.



Showcasing innovative green solutions

Additionally, a thorough understanding of competitors and market trends is essential for positioning a green enterprise strategically within the industry. By keeping a close eye on market dynamics and competitors, green entrepreneurs can adapt to industry shifts and maintain long-term success. Understanding your competitors within and outside your selected niche should basically include the following.



Mapping waste hotspots assists in targeted intervention and resource allocation

➡ Identifying direct and indirect competitors: Entrepreneurs should research both direct competitors (businesses offering similar green products) and indirect competitors (companies that could pivot into the green market). A detailed competitor analysis helps businesses identify unique selling points and potential market gaps.

➡ Market trends and innovations: Green industries are constantly evolving with technological advancements, policy shifts, and consumer preferences. Staying informed about new trends such as new production technologies, research breakthroughs, better business models ensures competitiveness.

➡ Pricing and value proposition: Competitive pricing strategies should balance affordability with sustainability. Businesses should highlight the added value of their products, such as durability, energy efficiency, or ethical sourcing, to justify premium pricing if necessary.

➡ Strengths and weaknesses analysis: Conducting a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis helps businesses identify areas for improvement and leverage competitive advantages in the green sector.

### 3.1.4 Assess Funding and Financing Alternatives

While there are myriad funding options for SMEs, it is not always easy to access funds to start and most importantly to sustain these enterprises especially in developing countries like Uganda. The Africa Competitiveness report (2017) notes that access to capital ranks among the top five most problematic factors for doing business in Uganda. 66.7% of the respondents in this study cited access to funding as a major challenge in the early stages of the enterprises. Access to capital is often even more difficult for small and emerging companies in the waste industry due to several challenges.

Below are some of the challenges as presented by Kirkpatrick et al., 1996 and recognized by similar newer publications.

- Waste recycling and upcycling is a relatively new context to the developing world and financiers are wary of any venture in a relatively new or unfamiliar industry and for which standardized benchmarking data is not available.
- Some investors also may be concerned about the volatility of the markets for certain recovered materials and the ability of unproven recycling companies to ensure reliable and growing profitability.
- Equity markets provide fewer opportunities for SMEs than for large firms. This trend suggests a concentration in large firms and high barriers to entry for SMEs, given the high costs associated with going public.

- Each funding source may have specific eligibility criteria, reporting obligations, and timelines that organizations must adhere to. This complexity often requires dedicated staff time and expertise that small enterprises may lack.
- Another significant hurdle is the competitive nature of grant applications and sponsorship opportunities.
- Economic fluctuations can impact corporate sponsorships and individual donations, leading to uncertainty in funding availability.

#### What are the available funding alternatives?

All 6 (100%) of the green enterprises we engaged relied on personal savings at the initiation stage of the business, and during their operation. Subsequently, 2 had taken a loan, and 2 had benefited from grants to sustain their operation.

SMEs can tap into various funding streams, including government grants, corporate sponsorships, crowdfunding campaigns, and impact investments. Each source has its unique advantages and challenges, making it essential for SMEs to develop a multifaceted funding strategy that aligns with their mission and project goal. In addition to personal savings, below is a description of the commonest green financing options accessed by successful green enterprises in Uganda.

## Grants

Government funding through Grants and other support schemes such as Business Incubators & Accelerators' recovery packages. Grants are a vital resource for SMEs focused on waste diversion. These grants are often designed to support initiatives that align with the funder's, national or regional environmental goals, such as reducing landfill waste or promoting recycling programs. Whereas the application process for grants can be competitive and complex, the potential benefits far outweigh the challenges. Successful grant applications typically require a well-defined project plan, clear objectives, and measurable outcomes that demonstrate the project's potential impact on waste reduction. The grant application must clearly align the project to the specific requirements and priorities of the grant-making agency. Additionally, building partnerships with local governments or other organizations can strengthen grant applications by demonstrating community support and collaboration. Most grants are acquired from government, research and innovation programs and business incubators.

XYZlabs provides a list of some of the business incubators and accelerators in Uganda. The prominent ones include:



<b>Ideation stage</b>	<b>Launch stage</b>
Startup Energy	HiiL (The HiiL Justice Accelerator)
Outbox Hub	Women in Technology Uganda
UGEFA (Uganda Green Enterprise Finance Accelerator)	StartHub Africa Catalyzer
Renewable Energy Business Incubator	NSSF Hi-Innovator
Stanbic Business Incubator	GrowthAfrica
CURAD Incubator	Google for Startups Africa
Makerere Innovation & Incubation Center	Challenges Group
FinAfrica	
Innovation Village	
TechBuzz Hub	African Climate Innovation Challenge

Table 3: Common business incubator and accelerator programs for SMEs in Uganda

Besides access to financing, an incubator or accelerator functions as a collaborative community that offers incubation and training programs for entrepreneurs and young professionals. It provides an extensive range of resources such as mentorship, skills training, and a diverse global network; dedicated to converting innovative ideas into prosperous businesses and strives to create an environment that nurtures the success of startups.

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## Loans

According to the ICPAU (2023), loans for SMEs in Uganda can be categorized into:

- ◆ Non-collateralized debt instruments: These are debt schemes, supported by the government, which may be extended to SMEs/MSMEs through commercial banks or development banks. Example: SMEs Kazi Loan products of the Uganda Development Bank (UDB).
- ◆ Asset-based lending: A loan provided against an entrepreneur's assets such as stock, property, plant, machinery, or intangibles like forward income streams.
- ◆ Leasing: SME owners can acquire liquidity by providing the right to use an asset they own in exchange for payments for a specified period.
- ◆ Hire Purchase Finance: Under this arrangement, instead of tying up capital in unsold inventory, SMEs can sell their goods and payment is made by the client in multiple installments over a given period of time. The reverse between the SME and their suppliers is equally important.

◆ Debt factoring: SMEs that sell goods or services on credit often have to wait a long time to get paid. Debt factoring helps them get cash faster. Here's how it works: The business sells its unpaid invoices (bills that customers haven't paid yet) to a company called a factor. The factor gives the business most of the money right away. Then, when the customer pays the invoice, the factor gives the rest of the money to the business — but keeps a small fee for the service. This helps the business have cash on hand quickly and also saves time because the factor takes care of collecting the payments from customers. It's both a way to get financing and a way to manage customer payments more easily.

◆ Invoice financing: This is similar to debt factoring, as it also involves SMEs using unpaid invoices as collateral to secure funding. However, this type of financing allows SMEs to access funds based on the creditworthiness of the debtor, before the SME but also the SME creditworthiness before the finance provider.

Bank overdraft: A bank overdraft lets a small business take out more money from its bank account than it actually has, up to a set limit. It's like a short-term loan from the bank. The business only pays interest on the amount it uses and only for the time it uses it. This makes it a handy option for covering short-term costs or managing cash flow when money is tight.



### Corporate sponsorships

Corporate sponsorship presents an excellent opportunity for SMEs to secure funding while also fostering partnerships with companies/businesses committed to sustainability. Many companies are increasingly recognizing the importance of corporate social responsibility (CSR) and are eager to support initiatives that align with their values. By partnering with corporations, SMEs can access not only financial resources but also expertise, networks, and promotional support that can enhance the visibility and impact of their waste reduction projects.

When seeking corporate sponsorships, it is essential for SMEs to identify companies whose missions align with their own. This alignment creates a natural partnership where both parties can benefit from shared goals. For instance, a waste reduction project focused on recycling could partner with a packaging company looking to improve its sustainability practices. By presenting a compelling case for how the partnership will benefit both the SME and the corporation - such as enhancing brand reputation or meeting sustainability targets - enterprises can create mutually beneficial relationships that drive impactful waste reduction efforts.

### Crowdfunding

Crowdfunding has emerged as a powerful tool for many NGOs, and could equally be utilized by enterprises seeking to finance their waste reduction projects. This approach involves SMEs reaching out directly to individuals who are passionate about environmental issues and willing to contribute financially to meaningful initiatives. Platforms like Kickstarter, GoFundMe, and Indiegogo provide an accessible way for entrepreneurs to showcase their projects and engage potential supporters. To run a successful crowdfunding campaign, entrepreneurs must craft a compelling narrative that resonates with potential donors.

This includes clearly articulating the project's goals, the specific waste reduction strategies being implemented, and the anticipated impact on the community and environment. Engaging visuals such as videos or infographics can help capture attention and convey the urgency of the project. Additionally, leveraging social media to promote the campaign can significantly expand its reach and attract a broader audience. By harnessing the power of crowdfunding, entrepreneurs can not only secure funding but also build a community of supporters who are invested in their mission.



### Impact investing

This involves attracting Investors with Social and Financial Returns generated by the enterprise. Impact investing offers a pioneering approach to financing waste reduction projects by drawing in investors who seek both social and financial returns. This form of investment is particularly appealing to enterprises that have a clear business model and measurable outcomes related to their activities over a period of time. By demonstrating how their projects can generate positive environmental impacts while also providing financial returns, entrepreneurs can attract impact investors who are eager to support sustainable initiatives.





### Green bonds

Green bonds are debt securities issued to raise funds for projects with positive environmental impact. Like traditional bonds, issuers -either governments or organisations raise capital from investors, offering regular interest payments and repaying the principal at maturity. The key difference is that their proceeds are specifically used for sustainable projects. Therefore, channelling capital into initiatives that address environmental challenges while providing solid financial returns.



### Venture Capital

Equity finance such as venture capital and business angel finance, can offer mentoring, business advice, and access to networks, which can improve the success rate of SMEs. In addition, it can provide entrepreneurs with useful resources to better adapt to new business conditions and consumer behavior changes as a result of the pandemic



## Carbon markets

By assigning a monetary value to carbon emissions and creating a system where emissions can be traded as credits, carbon markets are a pivotal mechanism to reduce greenhouse gas (GHG) emissions. These markets operate on the principle of cap-and-trade or carbon offsetting, enabling entities to either limit their emissions within an established cap – compliance markets – or purchase carbon credits to offset excess emissions – voluntary markets. The structure encourages investment in cleaner technologies and promotes sustainable practices by making the cost of pollution tangible.

## Public-Private Partnerships (PPPs)

Collaboration between the public sector and private companies can mobilize funding and resources for green jobs. PPPs can facilitate investment in sustainable infrastructure, clean energy projects, and vocational training programs, effectively sharing the financial burden and risks associated with such initiatives.

### Note from Ecobrix

“While grants are an important low-risk source of financing for startups, ultimately the entrepreneur should be ready to seek for alternative unlimited funding sources. This is because many grants are conditional, meaning they come with specific requirements or conditions that the recipient must meet before receiving or recognizing the grant as revenue. This can limit the flexibility of the enterprise to address changing needs in the market.”

## 3.1.5 Choose an appropriate Business Structure

Establishing a green enterprise requires careful consideration of the business structure, as this decision affects legal obligations, tax responsibilities, funding options, and overall business operations. Entrepreneurs should choose a structure that aligns with their sustainability goals, financial projections, and long-term vision. Choosing the right business structure is a foundational step in launching a green enterprise. The structure determines how the business is taxed, its legal responsibilities, and its ability to attract investors or funding. Entrepreneurs must weigh the advantages and disadvantages of each structure to determine the best fit for their green business, considering factors such as liability, tax implications, and funding opportunities. Below are the common business structures suitable for green businesses in Uganda:



## 1. Sole Proprietorship

A sole proprietorship is the simplest and most common business structure for small-scale green entrepreneurs. The business is owned and operated by a single individual, who is responsible for all profits and liabilities. A sole proprietorship is easy to set up and maintain, the business owner has full control over business decisions, there are minimal regulatory requirements, and lower administrative costs compared to the other business structures. However, the entrepreneur must also consider the disadvantages of such a business structure. First of all there is unlimited personal liability for business debts, many funders and investors, especially for green enterprises, are not comfortable dealing with sole proprietorships, and it may be more challenging to scale operations due to financial and technical shortages.



## 2. Partnership

A partnership involves two or more individuals/parties who share ownership of the business. It can be a general partnership (where all partners share responsibilities and liabilities) or a limited partnership (where some partners have limited liability). The advantages of partnerships include having Shared financial and management responsibilities, More access to capital compared to a sole proprietorship, and Flexibility in structuring the agreement between the parties. Like any union, business partnerships are liable to potential conflicts between partners. There is also unlimited liability for general partners, and partnerships often have a complex dissolution process in case of disputes.

## 3. Limited Liability Company (LLC)

An LLC combines the benefits of both a corporation and a partnership, providing limited liability to its owners while allowing for operational flexibility. The advantages of an LLC include Limited personal liability for business debts, Pass-through taxation, avoiding double taxation, Easier access to funding and investors, and Less stringent regulatory requirements compared to corporations. However an LLC can be more expensive to establish compared to sole proprietorships or partnerships, and there is ongoing compliance requirements and paperwork.

#### 4. Corporation (C-Corp and S-Corp)

A corporation is a separate legal entity from its owners. There are two main types of corporations: C-Corps, which are subject to double taxation, and S-Corps, which allow income to pass through to shareholders to avoid double taxation. In a corporation, there is limited liability for shareholders, it is much easier to attract investors and raise capital, and the business has perpetual existence, meaning it continues regardless of ownership changes. On the downside, corporations have a relatively complex and expensive setup process, they are liable to higher regulatory and compliance requirements, and there is possible double taxation for C-Corps.

#### 5. Cooperative (Co-op)

A cooperative is a business owned and operated by its members, who share profits and decision-making responsibilities. This structure is ideal for green businesses that prioritize social and environmental impact. Advantages include having a democratic decision-making process, limited liability for members, tax benefits and potential grants for sustainability-focused businesses. The drawbacks of a cooperative include slower decision-making due to collective ownership, difficulty in raising external capital, and complex regulatory requirements.

#### 3.1.6 Understand your legal considerations and tax implications

Once a business structure is chosen, entrepreneurs must navigate the legal and tax landscape to ensure compliance and financial efficiency.



##### 1. Legal Considerations

- **Business Registration:** All businesses must register with the appropriate government bodies. In Uganda, this involves registration with the Uganda Registration Services Bureau (URSB) and acquiring relevant permits.
- **Licensing and Permits:** Depending on the industry, green businesses may require special licenses (e.g., environmental compliance permits, waste management licenses).
- **Intellectual Property Protection:** Businesses developing innovative green technologies should consider patenting their products or services to protect their intellectual property.
- **Employment Laws:** Entrepreneurs must comply with labor laws regarding wages, workplace safety, and employee rights.

## 2 . Tax Implications

Each business structure has different tax obligations. Green businesses may also be eligible for incentives and exemptions aimed at promoting sustainability.

**Sole Proprietorships and Partnerships:** These structures are subject to individual income tax, meaning business profits are reported on the owner's tax return.

**LLCs:** Generally taxed as pass-through entities, meaning profits and losses are reported on the owners' personal tax returns.

**Corporations:** C-Corps face double taxation, once at the corporate level and again on shareholder dividends. S-Corps avoid this by passing profits directly to shareholders.

**Cooperatives:** Often benefit from tax incentives, especially those engaged in sustainable and community-driven activities.



## Environmental and Sustainability Incentives

The Government of Uganda and international organizations offer tax breaks and grants for green businesses. Some incentives include:

- **Tax Credits for Clean Energy:** Businesses investing in biogas, briquettes, solar, wind, or other renewable energy sources can receive tax deductions.
- **Carbon Credits and Trading:** Green businesses reducing carbon emissions can sell carbon credits for additional revenue.
- **Grants for Sustainable Innovation:** Organizations like the United Nations Development Programme (UNDP) and the World Bank provide financial support for eco-friendly startups.

By understanding the legal and tax implications, entrepreneurs can set up their green businesses in a way that maximizes benefits while ensuring compliance with local and international regulations. Proper structuring and adherence to the law help establish credibility, attract investors, and facilitate long-term growth.

### 3.2. Sustainable Product and Service Development

Green enterprises must deliver value not just economically but also socially and environmentally. That means designing products and services that reduce harm, use fewer resources, and stay useful longer. This section breaks down how to develop and deliver truly sustainable offerings across product design, supply chains, and distribution.

#### 3.2.1 Designing Eco-Friendly Products

Sustainable product design focuses on minimizing environmental impact throughout the product's life cycle - from raw materials to disposal - without sacrificing usefulness or affordability.



#### Key Principles:

1. **Resource Efficiency:** Use fewer materials and reduce waste during production.
2. **Renewable & Recycled Inputs:** Prioritize biodegradable, recycled, or locally sourced materials like reclaimed wood or organic fabrics.
3. **Durability & Longevity:** Design products to last longer and require fewer replacements.
4. **End-of-Life Planning:** Make products easy to disassemble, recycle, or compost.
5. **Life Cycle Thinking:** Consider the environmental impact at each stage - from sourcing and manufacturing to usage and disposal.



For anyone looking to venture into green jobs, it's essential to understand the importance of sustainability in business practices, maintain a commitment to ethical sourcing.

Mawejje Creations

Tools like Life Cycle Assessment (LCA) and the Lifecycle Design Strategy (LiDS) Wheel help evaluate and improve environmental performance compared to alternatives.

The most widely recognised method of measuring how 'sustainable' a product is, is through an LCA (life cycle assessment). An LCA looks holistically from start to finish of a product's journey. It takes into account the source of raw material(s), energy requirements for manufacturing, emissions from transportation, resources needed for use and maintenance and ultimately what may/may not be recaptured at the end-of-life. The complexity of the data requirements make it a lengthy and often expensive process, however it can help you identify which phase of the product life-cycle is the most polluting and therefore where you can make the biggest impact. Doing the same assessment at the end of the process will validate how/if you achieved your targets. While the most accurate LCAs are data driven, sometimes a qualitative analysis is sufficient

The LiDS Wheel is a benchmarking tool used to assess areas for sustainability improvement in a product such as energy use, recyclability, and material impact. It's especially helpful when comparing two or more design options. The LiDS Wheel is a great way to visualize and compare a current product or design with what an entrepreneur wants to bring to the market. Although it is not data driven and cannot be used to determine the actual environmental impact of a product, it is an excellent way to evaluate environmental tradeoffs between conceptual directions throughout the design process and in comparison with existing 'non-green' products.



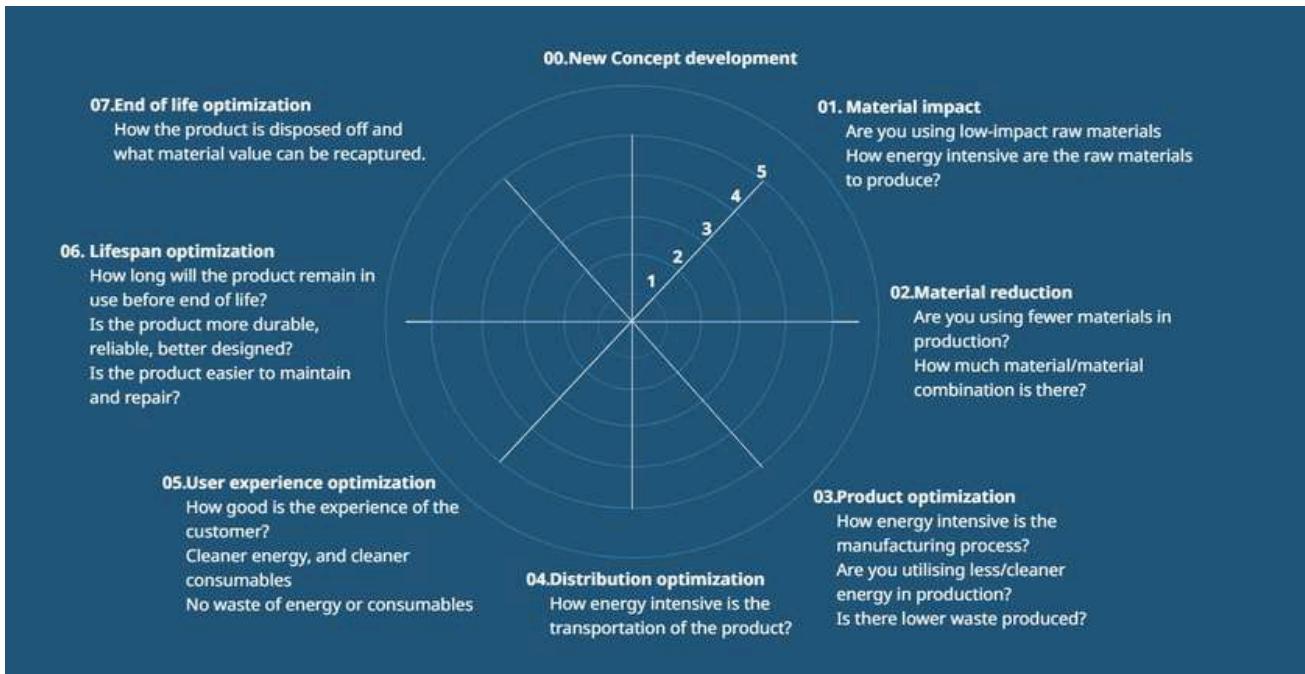


Figure 3: The LiDS Wheel for assessing sustainability of green products/services. Source: Compiled by GAYO (2025). Adapted from the LiDS Wheel by Brezet and Van Hemel (1997)

### 3.2.2 Sustainable Supply Chain Management

An ethical and green supply chain is core to delivering truly sustainable products.

#### Best Practices:

- Ethical Sourcing: Partner with suppliers who follow fair trade, safe labor practices, and responsible extraction.
- Transparency: Share where materials come from and how they're sourced.
- Reduce Carbon Footprint:
  1. Optimize routes and consolidate shipments.
  2. Use electric or hybrid delivery vehicles.
  3. Choose suppliers close to production or markets.
- Sustainable Packaging: Minimize packaging volume, use recyclable or compostable materials, and offer take-back systems where possible

Note: Every step in your supply chain should reflect your commitment to sustainability

### 3.2.3 Green Packaging and Distribution

Packaging and delivery are often overlooked, yet they are key parts of your product's environmental footprint.

#### Eco-Friendly Packaging Options:

- Biodegradable & Compostable Materials – like banana fiber, cornstarch plastic, or recycled paper.
- Minimal Packaging – cut excess without compromising protection.
- Reusable Packaging – design for return, refill, or repurposing.

#### Sustainable Distribution Practices:

- Carbon-Neutral Shipping: Offset emissions with verified programs.
- Local Production: Reduces fuel use and supports local economies.
- Energy-Efficient Warehousing: Use solar power and reduce waste in storage operations.

Note: Thoughtful packaging and smart delivery show customers you're serious about impact not just profits

### 3.3. Green Marketing and Branding

Green marketing is about more than promotion, it's about trust. It means communicating your environmental values clearly and consistently to customers, partners, and your community (Agarwal & Kumar, 2021). A strong green brand reflects your purpose and commitment to environmental responsibility, and builds credibility. In this study, a loyal customer base emerged as the most important factor for sustaining a green enterprise (Fig. 4), underscoring the power of authentic branding in driving long-term success.



Fig. 4. Factors contributing to sustainability of a green business in Uganda, as per the case studies



### 3.3.1 Building a Green Brand

Building a green brand means shifting from a profit-only mindset to one that includes environmental and social impact. It's not enough to say you're green, you need to show it through how you operate and communicate. Some of the strategies that aim at communicating sustainability values include the following:

- Balance Purpose and Product Quality: Sustainability shouldn't come at the cost of functionality or appeal.
- Be Transparent: Clearly explain where materials come from, how they're processed, and what impact your business has.
- Use Eco-Certifications: Show credibility through labels like Fair Trade, FSC, or organic certification.
- Tell Your Story: Share your journey: what challenges you faced, what you've changed, and what you've achieved.
- Co-create With Customers: Involve your community in your sustainability journey. Ask for feedback, invite participation.
- Align Brand Identity With Values: Use visuals, messages, and campaigns that reflect eco-consciousness.
- Use Sustainable Marketing Materials: Choose digital platforms and recycled or biodegradable print tools.

Communication skills are crucial in engaging a wide range of stakeholders and sector players. Good communication should be both verbal and written calling for retooling into speaking and writing skills for anyone that is interested in the green jobs sector. Good communication attracts customers, financiers and partners hence ensuring business growth.

Asili Kwanza Uganda Ltd



### 3.3.2 Green Marketing Strategies

Effective green marketing starts with authentic communication. The green entrepreneurs engaged in the case studies shared the following as easy and proven ways to connect with consumers and build a loyal, eco-minded audience:

1. **Show Real Impact:** Highlight sustainability in packaging, ads, and product design.
2. **Use Digital & Social Media:** Educate followers with videos, tips, and behind-the-scenes stories.
3. **Partner With Green Influencers:** Collaborate with sustainability advocates who align with your mission.
4. **Align With Causes:** Run campaigns tied to tree planting, clean-ups, or plastic-free challenges.
5. **Fair Pricing Strategy:** Justify pricing through impact metrics or carbon offset options.
6. **Report Transparently:** Publish short reports or infographics on your sourcing, energy use, and emissions.
7. **Avoid Greenwashing:**
  - Only make claims you can prove.
  - Use third-party verification when possible.
  - Never exaggerate. Credibility matters more than perfection.

**Note:** Honest marketing builds trust, Greenwashing destroys it.

### 3.3.3 Engaging with the Community

Sustainable brands grow stronger when rooted in their communities. A strong community connection enhances brand loyalty

#### Ways to Build Community Connection:

- **Open Feedback Channels:** Let customers shape your sustainability journey.
- **Educate Locally:** Run awareness events or school partnerships to share green practices.
- **Partner With Others:** Collaborate with NGOs, schools, or green startups.

#### Engage in Community-Focused CSR:

- **Support Local Projects:** Join or lead clean-ups, tree planting, or conservation drives.
- **Fair Labor Practices:** Provide safe, ethical jobs with fair pay.
- **Encourage Volunteerism:** Let your team engage in community service during work hours.

### 3.4. Safety and risks in conducting green jobs

Many green jobs, particularly those in handling waste present a range of safety and health risks to workers, including exposure to hazardous materials like chemicals, heavy metals, pathogens, physical injuries from machinery, and potential respiratory issues due to dust and fumes generated during the waste handling process. Therefore, risk management is a must.

## Case Insight: Safety risks at Kiteezi Landfill



Community members participating in training sessions to enhance their skills in waste management and green practices, fostering environmental sustainability and job creation

Figure 3: FGD with the informal waste workers at Kiteezi landfill held by GAYO Uganda

An Independent Needs Assessment in 2024 by Green Africa Youth Organization at the now-closed Kiteezi Landfill exposed critical safety failures affecting informal waste workers. The workers played a critical role of sorting waste at the landfill, which would receive over 40% of the solid waste from Kampala City and metropolitan areas, yet the working conditions were unsafe and hazardous. The key risks identified included;

1. Lack of adequate and appropriate personal protective equipment (PPE)
2. Reliance on rudimentary waste handling techniques such as manual sorting
3. Inadequate infrastructure for waste segregation
4. Lack of training in proper waste handling
5. Limited sanitation and poor hygiene facilities
6. High exposure to pests and disease vectors
7. High costs of health services
8. Accidents
9. Risk of Landfill collapse
10. Social stigma

Besides the obvious safety gaps, this case highlights a number of critical factors that must be considered by entrepreneurs and policymakers to promote safety of green jobs including:

**Table 4: Key insights from the Kiteezi landfill case and recommendations for improving safety in green jobs (Source: Authors, 2025)**

<b>Key insight</b>	<b>Recommendation</b>
<p>Need to build a safety cultureThe lack of PPE, absence of training, lack of signage and emergency plans is an indicator of general absence of a safety culture</p>	<p>Entrepreneurs are encouraged to go beyond just providing safety gear and embed safety into daily operations with toolbox talks, checklists, drills, and designated safety roles</p>
<p>Formalizing informal work is urgentThe case highlights how many green jobs in waste are informal and unprotected. Without contracts, training, or benefits, workers face avoidable risks.</p>	<p>Policymakers should promote the integration of informal waste workers into formal systems through cooperatives, licensing, or partnerships with city or municipal councils.</p>
<p>Health risks extend beyond the workplaceThe effects of disease vectors and pests are not limited to the green workers but extend to nearby communities</p>	<p>A responsible green enterprise should observe ecosystem-wide approaches to ensure safe water, pest control and health care access</p>
<p>Psychosocial risks are often ignoredSocial stigma and mental health stress due to working in unsafe conditions are rarely discussed but deeply affect workers</p>	<p>Entrepreneurs should look out for the emotional and social well-being of their workers.</p>
<p>Training is the first line of defenceThe lack of training at Kiteezi suggests many workers do not even know the risks they face or how to mitigate them.</p>	<p>Training should not be optional. Make orientation, on-the-job demos and regular refreshers part of every green job.</p>

This case highlights why informal waste workers must be integrated into safer, better-supported green job systems. Waste entrepreneurs and municipal partners should prioritize formalization, safety training, access to healthcare, and basic worker protections.

In a nutshell, in order to ensure safety at green enterprises, an entrepreneur must

- Conduct proper risk assessment,
- Use appropriate protective equipment,
- Comply with national and international environmental and occupational laws, and
- Ensure proper handling of hazardous materials.

Additionally, a sustainable workplace must ensure worker well-being through the following:

**Training and Education:** Conducting regular safety training on handling equipment, fire safety, and first aid.

**Workplace Ergonomics:** Providing safe and comfortable workspaces to prevent injuries related to repetitive movements or hazardous materials.

**Emergency Preparedness:** Having clear evacuation plans, fire extinguishers, and first aid kits readily available.

**Regular Audits and Inspections:** Conducting periodic safety inspections to identify potential risks and implement corrective measures.

**Mental and Physical Health Support:** Encouraging wellness programs and mental health initiatives for employees engaged in physically demanding tasks.

### 3.5. Getting immersed in the Green jobs sector.

Opportunities in the green economy are growing across Uganda, be it through entrepreneurship, social enterprise, or formal employment. Success in this sector requires more than good ideas; it demands the right skills, systems, and strategies to grow and sustain impact. Whether as the initiator of the business or a valued employee in the green sector, there are cross cutting attributes that will make you stand out. These are presented in the subsections below.

#### 3.5.1 Managing and Growing Green jobs; Skills and Knowledge needed by entrepreneurs.

Building and managing green jobs requires a strategic blend of sustainability knowledge, business competence, and community engagement. The following skill sets are essential for green entrepreneurs and leaders:

##### 1. Sustainability literacy

- Understand key environmental principles like circular economy, carbon footprint, and lifecycle analysis.
- Stay updated on climate policies, global trends, and ecological challenges.
- Apply sustainability thinking to product design, supply chains, and business operations.

## 2. Business and financial acumen

- Develop skills in budgeting, pricing, and financial forecasting with an emphasis on long-term value over short-term gains.
- Understand sustainable finance tools like ESG (Environmental, Social, Governance) metrics, green bonds and climate related grants.
- Access and manage funding from impact investors, grants and green loans.

## 3. Innovation and problem-solving

- Design eco-friendly products and services that solve real-world problems.
- Turn environmental constraints into business opportunities (e.g., turning waste into energy or materials).
- Adapt quickly to changing market conditions and regulatory landscapes.

### Innovative Practices implemented by Eco Brixs:

Eco Brixs has pioneered a sustainable and replicable model for plastic waste recovery across Uganda, particularly targeting semi-urban and rural areas. By focusing on collecting “uncompetitive plastic” — waste that typically goes unrecycled — the organization is extending its reach to underserved regions, increasing environmental and social impact.

On Ssese Island in Lake Victoria, Eco Brixs has launched a major recycling initiative, directly removing plastic from a critical freshwater source. Through community engagement, particularly with local fishermen, the project has not only cleaned the environment but also created income opportunities during low fishing periods, proving the dual benefits of awareness and economic incentive.

Eco Brixs underscores the role of innovation and partnerships in advancing sustainability. While respecting intellectual property in competitive sectors, the organization advocates for collaboration among green enterprises to present a united front in influencing policies that shape the growth of the green economy

#### 4. Systems thinking

- Always look at the bigger picture: the interconnectivity of social, economic, and environmental systems.
- Build solutions that are interconnected and scalable.
- Anticipate ripple effects and design scalable, resilient solutions.

#### 5. Communication and advocacy

Mawejje Creations on the importance of raising awareness and customer education. One of the primary challenges we faced was sourcing enough raw materials, as agricultural banana waste is often undervalued. We overcame this by establishing partnerships with local farmers and organisations, raising awareness about the potential uses of banana fibers.

Another challenge was educating consumers about the benefits of upcycled products, which we addressed through targeted marketing and community engagement initiatives to showcase the impact of our work.

#### 6. Stakeholder engagement

- Build trust with local communities, customers, and regulators.
- Collaborate with NGOs, government agencies, and other green businesses.
- Practice inclusive leadership, especially in communities vulnerable to climate change.

#### 7. Resilience and adaptability

- Stay focused through uncertainty and setbacks (which are common in sustainability).
- Innovate through constraints like limited resources or slow policy reform.
- Remain mission-driven while being flexible in your approach.

#### 8. Digital and tech skills

- Use digital tools to optimize operations (e.g., energy monitoring, supply chain tracking).
- Leverage mobile platforms for customer outreach, especially in rural or underserved areas.
- Stay open to emerging green technologies like AI for energy efficiency or blockchain for markets supply chain transparency.





### 3.5.2 Scaling a Green Jobs operations

Scaling a green enterprise refers to expanding your impact while maintaining sustainability principles. The key strategies for scaling operations shared by respondents include:

**Market research:** identifying new opportunities in green technology and sustainable consumer needs helps to develop and test sustainable products and services.

Solving peoples' needs first: I have learnt that the success of any business depends on the value it creates for its customers hence any entrepreneur/ business must primarily focus on what people need to guarantee market and long term growth.

Asili Kwanza Uganda Ltd



Strategic partnerships: Collaborating with the government, NGOs, and sustainability-focused enterprises promotes knowledge sharing among stakeholders



One big challenge was accessing funding to buy machines and scale our operations. As a woman founder in manufacturing, it was even harder to be taken seriously. We overcame this by building strong partnerships with organizations like UNDP Uganda, EAC-GIZ, TEF, and M-Kyala Ventures, who believed in our vision and supported us financially and technically.

Helton Traders on partnerships for scaling production



To cope up with the challenge of inadequate financing, we have formed partnerships with other sector players including raw material suppliers and producers of briquettes. This has enabled leveraging of resources and networks to keep production going. Other partnerships have been with Civil society organizations that provide linkages to sources of funding, markets and technical capacity. This has overtime enhanced our efficiency and growth.

Asili Kwanza Ltd on partnerships



**Accessing Green financing:** Securing funds from green loans, impact investors, and crowdfunding platforms

**Advisory Support:** Getting access to information through advisors and mentors who can add value to the business

**Diversify:** Develop multiple products to satisfy multiple markets

**Multiple Revenue Streams:** Eco Brixs has learned that although it is vital to focus your business, having multiple revenue streams and customers helps secure sustainability especially when the marketer is dependent on variables out of your control such as seasons, global trends, and or policies.

Eco Brix



**Management is key:** Prioritize building strong internal systems in governance, human resources and financial management from the early stages.

### 3.5.3 Measuring and Reporting Sustainability

Tracking your environmental and social performance is essential for credibility, accountability and access to funding. Common KPIs to consider when tracking your performance include:

- ❖ Carbon Footprint Reduction: Measuring emissions from operations and setting reduction goals
- ❖ Waste Diversion Rate: Tracking the percentage of waste recycled or composted
- ❖ Energy Efficiency Metrics: Monitoring energy use per unit of production.



**Sustainability reporting frameworks:** Sustainability reporting frameworks are standardized guidelines that help organizations measure, disclose, and communicate their environmental, social, and governance (ESG) performance.

These frameworks ensure transparency and accountability while allowing businesses to track progress toward sustainability goals.

#### Global Reporting Initiative (GRI)

One of the most widely used frameworks, GRI provides comprehensive guidelines for sustainability reporting, covering topics like carbon emissions, labor practices, and human rights. It helps organizations disclose their impact on the economy, environment, and society.

#### B Corp Certification

This is a certification rather than a reporting framework, but it includes a rigorous assessment of a company's social and environmental performance.

Businesses that achieve B Corp certification meet high standards for sustainability, transparency, and ethical business practices. While sustainability reporting frameworks like GRI and B Corp are applicable to SMEs in Uganda, their adoption depends on factors such as cost, regulatory requirements, and business goals. These frameworks may also be too demanding for startups. Alternatively, SMEs can:

- Start with basic sustainability reporting based on key ESG indicators relevant to their industry.
- Use local or simpler frameworks, such as those aligned with the Uganda Green Growth Strategy or UN Sustainable Development Goals (SDGs).
- Engage in voluntary reporting through initiatives like the UN Global Compact, which provides a simpler framework for sustainability reporting.

## 4. SKILLS AND KNOWLEDGE NEEDED FOR JOB SEEKERS

**A case highlight:** Isaac Ndyamuhaki (Founder at Asili Kwanza Uganda LTD and Programs Manager- Circular Economy at Green Africa Youth Organization Uganda explains the key skills and Knowledge needed for Green job seekers and Creators based on his experience.

Securing a job in the green business sector requires a mix of core professional competencies, technical knowledge, and a strong sense of environmental responsibility. Early career professionals seeking to grow their career in green jobs and succeed in the green job market may need to possess the following skills.

### 1. Environmental and Sustainability Literacy

Understand sustainability principles. Job seekers should have a clear understanding of core subjects and terms including circular economy, carbon neutrality, resource efficiency among others.

- Familiarity with global frameworks like the UN Sustainable Development Goals (SDGs), Paris Agreement, and climate action strategies. This is crucial to enable understanding of local and global contexts.
- Ability to connect business decisions with environmental and social impact.

### 2. Critical Thinking and Problem-Solving

- Ability to analyze complex sustainability challenges and propose innovative, practical solutions.
- Use data and systems thinking to address issues like waste, pollution, or energy use.



### 3. Technical/Industry-Specific Skills

- Circular economy & waste management, recycling technologies, product lifecycle assessment.
- Renewable energy: Knowledge of solar, wind, or biomass systems.
- Sustainable agriculture: Permaculture, organic farming, regenerative practices.
- Green construction: Energy-efficient design, eco-materials, LEED certification.
- Environmental science/consulting: GIS, impact assessments, compliance reporting.

### 4. Communication and Collaboration

- Explain complex green concepts to non-experts, especially clients, customers, or
- Advocate for sustainability internally (to colleagues) and externally (to the public).
- Collaborate across diverse team engineers, marketers, community leaders, among

### 5. Adaptability and Learning Mindset

- Green industries are fast-changing. Employers value those who can quickly learn new tools, tech, or regulations.

- Stay updated on trends like green finance, ESG investing, climate tech, and biodiversity

### 6. Digital and Data Skills

- Proficiency with Excel, GIS, CRM (customer relationship management) systems, or data analysis tools.
- For tech roles: familiarity with IoT, AI in sustainability, energy management systems.
- Use of digital platforms for impact tracking and sustainability reporting.



## 7. Networking and Professionalism

- Join green business forums, attend sustainability events, and connect with professionals on platforms like LinkedIn, X, Instagram among others.
- Volunteer or intern in environmental projects to gain experience and exposure.
- Demonstrate passion and commitment to the green mission during interviews.

## 9. Fund-raising & Relationship-Building

Why every green-jobs professional needs these twin skills

Securing money for climate-positive work is never just a matter of firing off grant proposals. Fund-raising and relationship-building are inseparable, because people—not portals—ultimately approve budgets. Sharpen the two together and you will triple your odds of success.

Do this...	Because...	Practical tip
Map the ecosystem before you write.	Knowing who funds what helps you tailor a pitch that “fits like a glove.”	Keep a live spreadsheet of each donor’s priorities, ticket size, and deadlines.
Cultivate “warm” contacts.	A human champion can move a proposal from good to funded.	Attend webinars, comment thoughtfully on their LinkedIn posts, and follow up with a concise intro email.
Lead with shared goals, not with need.	Donors fund outcomes that align with their mission, not your cash shortfall.	Open the conversation with impact metrics—jobs created, tonnes of waste diverted, CO <sub>2</sub> avoided.
Ask the right ask at the right time.	Too big, too soon = sticker shock; too small, too late = missed cycle.	Start with flexible seed support, then scale to programme or capital grants once trust is earned.
Nurture the relationship after the cheque clears.	Repeat funding depends on transparency and small wins.	Send brief quarterly updates—even when not required—and celebrate joint milestones publicly.

Ready-to-explore small-grant opportunities with these suggested organizations

1. [Social, Environmental & Humanitarian Grants with Expo Live | Expo City Dubai](#)
2. [Global Innovation Fund](#)
3. [Global Alliance Incinerator Alternatives](#)
4. [Urban Movement Innovation Funds](#)

“I've drafted more grant proposals than I can count and watched 99 percent of them get turned down. Yet every ‘no’ has been priceless tuition: I've learned to invest in relationships, to listen first, and to stay patient, because the contact you meet today may hold the funding you need tomorrow.”

Betty Adjei, Director of Operations & Programs, GAYO



## 5. OPPORTUNITIES, TRENDS AND RECOMMENDATIONS

Green jobs are critical to achieving sustainable development in Uganda and beyond. However, realizing their full potential requires navigating systemic barriers, seizing emerging opportunities, and aligning with evolving national and global trends. This section outlines where opportunities lie, and what to expect moving forward



### 5.1 Opportunities

The transition to a green economy presents a transformative opportunity for African nations, and one of the most underutilized yet high-potential sectors is waste diversion.

In Uganda and in many cities across the continent waste is both a growing environmental crisis and a missed economic resource. The waste diversion sector, which includes recycling, composting, upcycling, and alternative waste-to-value innovations, offers immense potential to create green jobs, reduce pollution, and drive inclusive economic development.

In East Africa, Uganda inclusive, over 70% of waste is organic, yet only a fraction is composted or reused (James, 2012). Plastics, e-waste, and other non-biodegradable materials continue to clog drainage systems, pollute land and water bodies, and pose health hazards. Yet when redirected into productive use, such as converting plastics into construction materials or organic waste into biogas, this waste becomes a source of value. Waste diversion not only helps to reduce environmental degradation but also opens up employment across multiple stages: collection, sorting, processing, manufacturing, marketing, and distribution.

This sector is particularly suited to small and medium enterprises (SMEs), cooperatives, and community-based initiatives. From youth-led recycling hubs and women's briquette cooperatives to tech-enabled waste collection startups, it is evident from our study that local innovations are already showing the potential of this space to address unemployment, especially among youth and women. Furthermore, waste diversion supports other green economy sectors like sustainable agriculture (via compost), renewable energy (via biogas), and eco-manufacturing (via recycled materials).

As cities expand and waste generation increases, the demand for sustainable waste solutions will grow (UNEP, 2024). Governments, development partners, and investors have an opportunity to support this shift through financing, training, and enabling infrastructure. The integration of circular economy principles into national and local planning can catalyze green job creation while advancing climate resilience, public health, and environmental justice.

## 5.2 Future Trends in Green Business

Green businesses must stay ahead of shifting policy landscapes, international frameworks, and technological innovation. Future-ready enterprises will align with national goals, global agendas, and emerging market trends. An enterprise needs to align itself with these frameworks to maximize access to technical, policy and financial support for its success.

### 5.2.1 National Policy Framework and Support Systems

Uganda has adopted several policies that support the growth of green jobs

#### Vision 2040

Uganda Vision 2040 is a guiding framework aimed at transforming Uganda from a predominantly peasant and low-income nation into a competitive upper-middle-income country. To achieve sustainable development, this vision emphasizes the importance of a green economy. Specifically, under the Vision's Aspirations, Principles, Targets, and Policy Shifts (Aspiration F), the green economy is expected to play a crucial role in fostering economic growth, eradicating poverty, and ensuring the sustainable use of natural resources. Ultimately, it aims to enhance human welfare by creating employment opportunities (GoU, 2017).



## The National Development Plan (NDP III) 2020/21 – 2024/25

The NDP III recognizes the changing national innovative strategies for livelihood and survival, as well as the increasing need for Climate Smart Agriculture, which supports a Green Economy. One of the key initiatives is the proposed development of a national green growth financing and investment plan. This plan aims to support the creation of green jobs, promote research and innovation, and facilitate the adoption of environmentally appropriate technology to ensure the sustainable use and management of natural resources (UIA, 2017). Additionally, the government intends to enhance the private sector's capacity to access green financing and respond to green growth initiatives.

## The Fourth National Development Plan (NDPIV) (2025/26–2029/30)

The new National Development Plan (NDPIV) for Uganda emphasizes the creation of green jobs as a key strategy for sustainable industrialization and socio-economic transformation, aligning with the Sustainable Development Goals (SDGs) such as Decent Work and Economic Growth (SDG 8) and Climate Action (SDG 13). By promoting investments in sustainable agriculture, circular economies and renewable energy. NDPIV aims to foster economic growth while reducing environmental impact. The plan will also focus on skill development and public-private partnerships to empower communities, particularly targeting youth engagement in green job initiatives, ensuring they contribute to poverty eradication (SDG 1) and promote sustainable cities and communities (SDG 11), ultimately positioning Uganda as a leader in sustainable development by 2040.



## The Uganda Green Growth Development Strategy

The Uganda Green Growth Development Strategy emphasizes the need for Uganda to shift its growth model towards a sustainable, green growth approach. This strategy aims to achieve inclusive economic and social outcomes while protecting natural resources, addressing climate change, creating jobs, and boosting economic growth.

The green growth model is defined as an inclusive process of low-emissions economic development that focuses on the effective and efficient use of the country's natural, human, and physical capital.

It ensures that natural assets continue to support both present and future generations. Implementing this strategy is projected to enhance the national GDP by 10 percent beyond the "Business As Usual (BAU)" target, create an additional 4 million green jobs, and reduce greenhouse gas emissions by 28 percent compared to the conventional growth pathway.

## 5.2.2 International treaties and frameworks that will drive green jobs

The 2030 Sustainable Development Agenda and the Sustainable Development Goals (SDGs)

The 2030 Agenda for Sustainable Development established the Sustainable Development Goals (SDGs), which were adopted by all United Nations member states. The agenda aims to promote peace and prosperity while addressing climate change. Specific SDGs include:

- ★ SDG 6 Clean Water and Sanitation
- ★ SDG 7 Affordable and Clean Energy
- ★ SDG 8 Decent Work and Economic Growth
- ★ SDG 9 Industry, Innovation, and Infrastructure
- ★ SDG 13 Climate Action
- ★ SDG 15 Life on Land

These goals provide a global framework for creating green jobs.



## The United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC is an international treaty aimed at combating human interference with the climate system. It promotes ongoing scientific research, enables ecosystems to adapt to climate change, and supports projects that mitigate and adapt to the effects of climate change.

## The Paris Agreement

The Paris Agreement emphasizes the commitment of nations to ensure a just transition, fostering the creation of decent work and green jobs. According to a report by the International Labor Organization, 24 million new jobs could be created globally by 2030, provided that sustainable practices are adopted and implemented (ILO, 2018).

### 5.2.3 Technological Advancements

The transition to a green economy is being propelled by rapid technological advancements, particularly in circular economy innovations, renewable energy, and digital tools.

These developments are not only mitigating environmental challenges but also creating significant employment opportunities for the country's burgeoning youth population.

Innovations in the circular economy are transforming waste management and resource utilization throughout Africa. Technologies that enable the recycling and upcycling of waste materials are creating new business opportunities and jobs. Initiatives that convert agricultural waste into biofuels or construction materials are not only reducing environmental pollution but also providing employment in collection, processing, and distribution. For instance, at least 150 persons are permanent employees within the 6 enterprises engaged in the case studies, and their operations provide opportunities to several other youths, women and marginalized groups.



The deployment of renewable energy technologies is expanding access to clean energy, especially in off-grid and rural areas, while generating jobs in installation, maintenance, and manufacturing. For instance, the expansion of solar mini-grids and home systems has created employment opportunities for technicians, sales agents, and customer service providers. Green businesses will increasingly rely on data tools, mobile platforms, and clean tech to improve efficiency and reach underserved markets. Digitalization is playing a pivotal role in enhancing the efficiency and reach of green technologies. Mobile applications and digital platforms are facilitating the dissemination of information on sustainable practices, connecting green entrepreneurs with markets, and providing training resources.

For example, in one of the green enterprises engaged, digital platforms are being used to train youth in sustainable agricultural practices, enabling them to increase productivity and access new markets. The integration of AI, blockchain, and smart monitoring systems is expected to further enhance traceability and transparency in supply chains.



### 5.3 General recommendations

As you finish this handbook, here are practical takeaways for action:

- **Start where you are** Use available waste streams or local skills to begin a small pilot or community project.

Do not wait to have a lot of capital or resources, start with what you have.

- **Map your ecosystem** Identify partners e.g. NGOs, local governments, accelerators that can support your

journey.

- **Build your skills** Focus on sustainability literacy, digital tools, and communication as core green job competencies.
- **Tell your story** Use branding and storytelling to connect your mission to wider social and climate goals.

Visit [www.bisafrica.org](http://www.bisafrica.org) to access guideline

- **Track your impact** Begin simple sustainability reporting using key indicators like waste diverted, jobs created, or energy saved.
- **Advocate and collaborate** Engage with peers, platforms, and policymakers to improve the enabling environment for green enterprises.
- **Waste-diversion is the quickest win for a Ugandan (and SSA) green economy.** Turning organic, plastic and electronic waste into value-added products can create thousands of jobs while unblocking land- and waterways; hence the focus on recycling, composting, briquetting, and up-cycling case studies.

- **Policy tail-winds already exist—use them.**

The Constitution, Vision 2040, NDP IV, the Green Growth Development Strategy and municipal by-laws all reference circular, low-carbon development. Aligning a business plan with these frameworks unlocks permits, incentives and future carbon-market revenue.

- **A solid green business plan still starts like any other—then adds sustainability metrics.**

Market analysis, revenue model and operations plan remain essential, but KPIs such as

1. waste-diversion rate, carbon avoided and community benefit must sit beside profit forecasts.

- **Funding is a portfolio game.**

Successful enterprises mix personal savings, grants, concessional loans, incubator support, impact investors, carbon finance and (later) revenue bonds. Reliance on a single grant stream stalls growth.

- **Choose the right legal structure early.**

Sole proprietorships are quick but risky; LLCs and co-ops provide liability protection and attract mission-aligned funders; understanding URSB registration and tax obligations

prevents costly pivots later.

- **Design for the full life-cycle.**

Tools like LCA and the LiDS Wheel help entrepreneurs minimize a product's footprint from sourcing to end-of-life—crucial when customers and regulators increasingly demand proof of impact.

- Safety first, especially in waste work.

The Kiteezi-landfill case shows that PPE, formal contracts and basic health cover are non-negotiable—not add-ons—if green jobs are to be “decent” jobs. Formalising informal pickers is both ethical and commercially smart.

- Branding must be authentic—greenwashing kills trust.

Transparent supply chains, third-party certifications and community engagement beat glossy eco-buzzwords every time; loyal customers top the list of survival factors for Ugandan green SMEs.

## PRACTICAL TAKEAWAYS FROM THE HANDBOOK

Start where you are

Map your ecosystem

Build your skills

Tell your story

Track your impact

Advocate and collaborate

Take advantage of existing policies

Have a Green Business Plan

Funding is a portfolio game

Choose the right legal structure early

Design for the full life cycle

Safety first, especially in waste work

Branding must be authentic

Critical skill set (sustainability, finance, research, communication)

Scale comes from systems and partnerships

Measure, report, improve

- Critical skill sets span four domains:

Sustainability literacy, business/financial acumen, digital & data competence, and stakeholder communication. These apply to founders and job-seekers alike.

- Scale comes from systems and partnerships.

Case studies (e.g., Eco Brixs) show that standardized HR/finance processes, multiple revenue streams, and collaborations with municipalities or NGOs allow rapid tonnage growth and investor confidence.

- Measure, report, improve.

Even a lean start-up should track core ESG indicators (waste diverted, CO<sub>2</sub> saved, jobs created) and publish simple dashboards; frameworks like GRI or a bespoke SME template make impact visible and fundable.

- The handbook is a springboard, not a finish line.

It slots into GAYO's broader Zero Waste Cities programs and invites replication across Africa, demonstrating that what works in Kampala or Accra can work in any fast-growing city ready to turn waste into wealth.



## CONCLUSION.

The transition to a greener, more sustainable future is not a distant dream; it's already underway and green jobs are at the heart of this transformation. From waste management to renewable energy to sustainable farming, from eco-innovation to climate finance, the green economy offers pathways to careers that protect the planet while providing meaningful livelihoods.

This handbook has provided an introduction to the vast and evolving landscape of green jobs, but most importantly, it has shown that every skill, every role, and every effort matters in building a more resilient, equitable, and environmentally conscious world.

Whether you're a student exploring your future, a professional seeking purpose, or an entrepreneur solving today's sustainability challenges, know this: the green economy needs you.

Your passion, creativity, and commitment can be powerful tools for change, so take the next step, educate yourself, connect with others, and begin your journey toward a career that not only sustains you but also sustains the world around you. The future is green, and it's waiting for your contribution.



Green jobs span sectors, offering careers that protect the environment while providing meaningful livelihoods

## APPENDIX: PROFILES OF SUCCESSFUL GREEN ENTERPRISES IN THE CASE STUDIES

### a) ECOBRIXS

“Having multiple revenue streams and customers helps secure sustainability” - Andy Bownds. CEO & Co-founder Eco Brix

#### Description of the Business

Eco Brixs is a recycling enterprise that adds value to plastic waste in Uganda. Eco Brixs has grown over 7 years from recovering 2 tons of waste plastic a month to 150 tons of material. This has been achieved by building in a community-first and sustainable manner, focusing on market need and demand for recycled product growth. Eco Brixs now has over 85 full-time staff and is growing to process over 200 tons of plastic waste by the close of 2025.

#### Lessons learned from Eco Brixs' journey

Eco Brixs has learned multiple core lessons over its growth. Key elements are listed below:

1) Systems: Eco Brixs has learned that core governing, HR, and financial systems are essential for any green business.

Ensuring that strong processes are in place from the outset allows green businesses to compete with more typical for-profit businesses, demonstrating to investors that green businesses are ready for scale and investment beyond the positive impact story.

2) Eco Brixs has learned the value of unrestricted funding for development. The world of an SME is ever-developing and changing. Grants are essential for securing start-up funds at low risk but as the enterprise grows unrestricted funds are essential to allow for the flexibility needed for any enterprise to react to markets and build sustainably.

3) Multiple Revenue Streams: Eco Brixs has learned that although it is vital to focus your business, having multiple revenue streams and customers helps secure sustainability especially when the marketer is dependent on variables out of your control such as seasons, global trends, and or policies.



4) Community-First: Most waste management value chains are dependent on grassroots supply chains, whether it is plastic waste, organic matter, or other recyclables; the core supply chain is often made up of a community of informal workforce. Eco Brixs has learned the value of building the model to have the community at the center recognizing the community is the backbone for both your positive impact and sustainability. Eco Brixs has achieved this by unionizing our supply chain through the creation of The Uganda Recycling Authority. This independent body represents the informal waste worker, giving them a voice in the enterprise design and implementation.

#### Innovative Practices implemented by Eco Brixs

Examples of cutting-edge green business practices.

1) Eco Brixs has developed a replicable model that can be sustainably taken across Uganda. Focusing on collecting plastic in semi-urban and rural areas Eco Brixs' system is recovering plastic waste from the environment that would not otherwise have been recycled. We call this uncompetitive plastic. Eco Brixs utilizing the USP of collecting uncompetitive plastic has allowed us to enter into new geographical areas and therefore have a larger impact on both people and the planet.

2) Eco Brixs has also led on recycling on the Sese Island in Lake Victoria. This has allowed us to actively remove plastic from this most vital freshwater source. Working with island communities has been essential for Eco Brixs' success in Kalangala.

This has been our biggest awareness campaign to-date that has led to fishers of plastic. Encouraging fishermen in off seasons and during bad weather to focus on collecting plastic, to both earn extra money but also protect the vital fish stocks. It has demonstrated the importance of awareness alongside creating the income opportunity.



## How innovation drives sustainability.

Eco Brixs believes that partnership and innovation drives sustainability. Recognising that enterprises can work in competition and want to protect their IP and USP. But collaboration and positive relationships between a variety of actors in the green space leads to being able to have a single voice when addressing policy issues that can both negatively and positively affect Green Economy Growth.

## b) NABUGABO UPDEAL JOINT VENTURE

"Turning waste into opportunity, green jobs build a cleaner future" - Wasswa Akram. Lead Project Coordinator. Nabugabo Updeal

## What makes Nabugabo Updeal unique?

Nabugabo Updeal Joint Venture stands out for its innovative approach to waste management, combining over two decades of service with cutting-edge solutions like the Black Soldier Fly project. By transforming organic waste into valuable resources, we reduce emissions, create green jobs, and drive inclusive, community-based circular economy practices in Kampala and beyond.

...yes, the enterprise has faced challenges

Nabugabo Updeal Joint Venture has faced challenges like limited funding, community engagement gaps, and inefficient waste segregation. We've overcome these through strategic partnerships, public awareness campaigns, and innovative technologies like Black Soldier Fly larvae for organic waste recycling, enhancing sustainability, operational efficiency, and stakeholder collaboration across Kampala's waste management ecosystem.



Innovative approaches like waste-to-resource projects create green jobs and promote circular economies.

## What makes a green enterprise sustainable?

At Nabugabo Updeal Joint Venture, we believe key considerations for green jobs include sustainability, innovation, and community impact. Understanding environmental regulations, securing funding, and adopting circular economy models are essential. Passion for environmental protection and readiness to adapt to evolving technologies are crucial for success in the green job sector. At Nabugabo Updeal Joint Venture, we've learned that community engagement, innovation, and adaptability are vital for success in waste management. Building strong partnerships, investing in sustainable technologies like Black Soldier Fly larvae, and aligning with environmental goals have strengthened our impact and resilience throughout our journey in the green economy.

## c) HELTON TRADERS Ltd

"Turning waste into opportunity is not just business, it's building a future where both people and the planet can thrive." - **Munyasa Hellen**. Founder and Managing Director. Helton Traders Ltd.

### Brief Description of the Business:

Helton Traders Ltd. is a green enterprise based in Uganda that transforms plastic waste into high-quality affordable polyester sewing threads. We collect used plastic bottles, recycle them, and spin them into strong, affordable sewing threads for the textile industry. We started our operations officially in 2022 after several months of research and development.

### What makes Helton unique?

What makes Helton unique is that we are the first and only company in East Africa making sewing threads from recycled PET plastic, offering a sustainable, cheaper, and faster-to-deliver alternative to imported threads. Our work not only solves the problem of plastic pollution but also supports women and youth by creating green jobs in waste collection and recycling.



### Main challenges and how we overcame them

- One big challenge was accessing funding to buy machines and scale our operations. As a woman founder in manufacturing, it was even harder to be taken seriously. We overcame this by building strong partnerships with organizations like **UNDP Uganda, EAC-GIZ, TEF, and M-Kyaala Ventures**, who believed in our vision and supported us financially and technically.
- Another challenge was that local customers doubted the quality of locally made sewing threads. Many thought only imported threads could perform well. We overcame this through consistent customer education, free samples, and by proving that our threads are stronger, eco-friendly, and 22% cheaper than imported ones.
- Also, finding a steady supply of plastic waste was a challenge, but we built a wide network of over 150 waste collectors, most of whom are women and youth, ensuring a reliable supply chain.

### Key considerations for anyone venturing into green jobs

- Solve a real problem. Make sure your green business addresses a real environmental or social issue
- Be ready to educate your market. Many people still do not understand the value of green solutions

- Stay consistent and resilient. Building a green enterprise takes time and patience, but the impact is worth it. Partnerships are powerful. Don't try to grow alone, find partners who believe in your mission.
- Think long-term. Green businesses are not just about making money, they are about building a sustainable future.

### Key Lessons Learned in our journey at Helton:

- Starting small is okay, what matters is growing steadily with a clear vision.
- Impact is powerful. When you show how your business helps the community and environment, people support you more. stronger and more meaningful.
- Never stop learning. Every day brings new challenges, so staying open to learning is key.
- People matter most. Empowering your team and your community makes the business

### **d) ASILI KWANZA UGANDA LTD**

“The concept of climate change stems from individual lifestyles and its through business that these lifestyles can be broken to make real progress. Sustainable business and building of green economies is therefore the way to go.” - Isaac Ndyamuhaki. Founder. Asili Kwanza Uganda.



### Description of the business

Waste conversion to Clean cooking Asili Kwanza Uganda is a social enterprise that provides safe, affordable and sustainable energy solutions. Our work hinges on the need for covering clean energy access gaps in cooking and post harvest handling of agricultural products to contribute to the broad efforts for achieving environmental sustainability and sustainable development. The company's product lines are charcoal briquettes made from organic waste solar aided stoves and solar dryers.

### Main challenges and how we have overcome them

Asili Kwanza Uganda's challenge has been largely on scaling up operations partially because of inadequate financing which has made the enterprise lag behind the available demand of the products. To cope up with this challenge, we have formed partnerships with other sector players including raw material suppliers and producers of briquettes. This has enabled leveraging of resources and networks to keep

production going. Other partnerships have been with Civil society organizations that provide linkages to sources of funding, markets and technical capacity. This has overtime enhanced our efficiency and growth.

### Key considerations for anyone looking to venture into green jobs

The key considerations for anyone to join the Green Jobs sector would be; Entrepreneurial and Intrapreneurial skills; Ability to forecast and scan challenges that people are facing and turn them into opportunities. This is a crucial skill on which real business is inclined. Leadership skills; ability to manage and direct teams on what to do in order to achieve broader goals and perspectives. Communication skills: This is crucial in engaging a wide range of stakeholders and sector players. Good communication should be both verbal and written calling for retooling into speaking and writing skills for anyone that is interested in the green jobs sector. Good communication attracts customers, financiers and partners hence ensuring business growth.



Technical skills: Anyone seeking to join the green Jobs sector needs to possess relevant technical skills to enable them to navigate the demands at work. For entrepreneurs, it's more crucial to be all around with technical skills in production, record keeping and general management. This is core and ensures both long term and short term growth of the business. Job seekers may need specific technical skills but being multi skilled brings more value and added advantage to be employed in a green business. Important skills for job seekers may include use of marketing, production for example material rationing, use of soft wares, computing among others.

### e) MAWEJJE CREATIONS

"Creativity is the way I share my soul with the world." – Brené Brown; This quote reflects the essence of Mawejje Creations, where our creativity in repurposing materials not only drives our business but also expresses our commitment to a sustainable and equitable future. - **Dimma Muhammed. Founder/CEO**

Mawejje Creations

### Description of Mawejje Creations.

Mawejje Creations is a social enterprise operating for over 5 years, transforming agricultural banana waste and textile remnants into innovative, eco-friendly fabrics. Revolutionising the fashion industry using plant-based substances, mitigating challenges in fast fashion and climate change. Our mission is to create high-quality products while providing training and job opportunities for youth in rural Uganda. What sets us apart is our unique circular business model that combines sustainability with social impact, empowering local communities in the fashion industry.

### Main Challenges and Overcoming Them.

One of the primary challenges we faced was sourcing enough raw materials, as agricultural banana waste is often undervalued. We overcame this by establishing partnerships with local farmers and organisations, raising awareness about the potential uses of banana fibers. Another challenge was educating consumers about the benefits of upcycled products, which we addressed through targeted marketing and community engagement initiatives to showcase the impact of our work.



### Key Considerations for Green Jobs.

For anyone looking to venture into green jobs, it's essential to understand the importance of sustainability in business practices, maintain a commitment to ethical sourcing, and foster community engagement. Networking with other eco-conscious enterprises can provide valuable insights and stimulate collaboration. Additionally, focusing on innovation and adapting to changing market needs will help navigate challenges in the green sector.

### Key Lessons Learned.

Throughout our journey, we've learned the importance of resilience and adaptability in the face of challenges. Engaging with the community not only enhances support for our mission but also fosters collaboration and shared knowledge. We've realised that transparency in our practices builds trust with our customers.

Lastly, prioritising continuous research and development ensures we remain at the forefront of sustainable practices within the fashion industry.



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