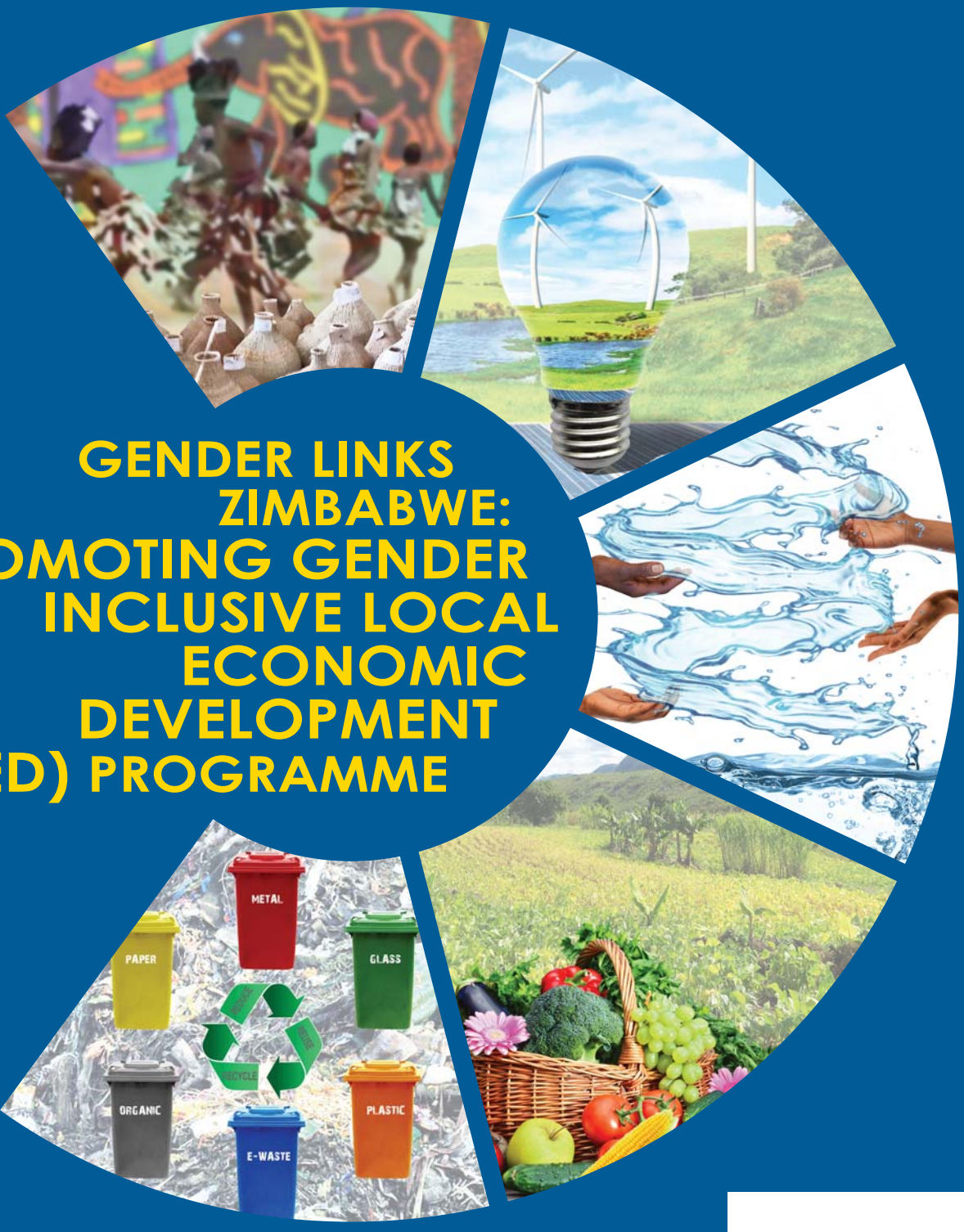
GENDER LINKS
FOR EQUALITY AND JUSTICE

MARKET RESEARCH AND ANALYSIS REPORT



GENDER LINKS ZIMBABWE: PROMOTING GENDER INCLUSIVE LOCAL ECONOMIC DEVELOPMENT (LED) PROGRAMME

SUPPORTED BY
Sweden
Sverige

Gender Links (GL) is committed to an inclusive, equal, and just society in which women and girls in all their diversities exercise their voice and choice in accordance with the Southern African Development Community (SADC) Protocol on Gender and Development and related regional, continental, and global instruments.

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Gender Links Zimbabwe
30 Samora Machel Avenue
Harare
Phone: +263 242 798600
Email: zimmanager@genderlinks.org.za
Website: www.genderlinks.org.za

Editors:
Design/Layout: Debi Lee
Print:

Consultants

Kainos Musvinu - Team Leader
Enerst Chimuka - Researcher
Lynnette Mupini-Tshabangu - Researcher

Contact

ASKDev Trust
9094 Cowie Rod
Happy Hill
Tynwald South, Harare. Zimbabwe.
Mobile: +263712864520/+263775210233
Email: askdevconsult@gmail.com

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Acronyms

ADRA	Adventist Development and Relief Agency
ARDA	Agricultural and Rural Development Authority
BDS	Business Development Services
BACHEF	Bulawayo Arts, Culture and Heritage Endowment Fund
BCAO	Bulawayo Cultural Affairs Office
BHI	Bulawayo Home Industries
BMC	Business Model Canvas
CBD	Central Business District
CCI	Cultural Creative Industries
CFU	Commercial Farmers Union
CoE	Centres of Excellence
COP	Conference of Parties
COVID-19	Corona Virus Disease 2019
DLPD	Department of Livestock Production
DRSS	Department of Research and Specialist Services
EFGAZ	Export Flower Growers Association of Zimbabwe
EMA	Environmental Management Authority
EU	European Union
FAO	Food and Agriculture Organisation
FAWG	Fisheries and Aquaculture Working Group
FGD	Focus Group Discussion
GAP	Gender Action Plan
GGC	Global Gap Certification
GDP	Gross Domestic Product
GLZ	Gender Links Zimbabwe
GRB	Gender-Responsive Budget
HDPE	High-density Polyethylene
HRDP	Horticulture Recovery and Growth Plan
ICRISAT	International Crop Research Institute for the Semi-Arid Tropics
ICT	Information Communication Technologies
ISAL	Internal Savings and Lending
ILO	International Labour Organization
IMF	International Monetary Fund
KII	Key Informant Interview

LDEP	Low-density Polyethylene
LED	Local Economic Development
MLAFWCRD	Ministry of Lands, Agriculture, Fisheries, Water, Climate and Rural Development
MSD	Market Systems Development
MSME	Micro, Small and Medium Enterprises
MWACSMES	Ministry of Women's Affairs, Gender, Community, Small and MediumEnterprises
NEP	National Environmental Policy
NDS1	National Development Strategy 1
NGO	Non-Governmental Organizations
OACPS	Organization of African, Caribbean and Pacific States
PESTLE	Political, Economic, Social, Technological, Legal, Environmental
PET	Polyethylene Terephthalate
PICES	Poverty, Income, Consumption and Expenditure Survey
REA	Rural Electrification Agency
RBZ	Reserve Bank of Zimbabwe
RDC	Rural District Council
RT	Research Team
SADC	Southern African Development Community
SAZ	Standards Association of Zimbabwe
SBU	Strategic Business Unit
SDG	Sustainable Development Goals
SHF	Small-holder Farmer
SMEDCO	Small and Medium Enterprises Development Corporation
SWOT	Strengths Weaknesses Opportunities and Threats
TCA	Thematic Content Analysis
UK	United Kingdom
UN	United Nations
UNFCC	United Nations Framework Convention on Climate Change
USA	United States of America
USD	United States of America Dollar
UV	Ultra-Violet
VC	Value Chain
VCA	Value Chain Analysis
ZERA	Zimbabwe Energy Regulatory Authority
ZFPA	Zimbabwe Fish Producers Association
ZIMSTAT	Zimbabwe National Statistics Agency
ZITF	Zimbabwe International Trade Fair
ZNRP	Zimbabwe National Recycling Programme
ZPWMA	Zimbabwe Parks and Wildlife Management Authority

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Zimbabwe LED Launch

Summary

Gender Links (GL) put out a call seeking experienced consultant(s) to conduct a market research and analysis of five (5) value chains (VC), namely: **Arts and Culture, Clean or Renewable Energy, Fisheries, Horticulture, Waste Management and Recycling**. The overall objective of the assignment was to carry out a market research and analysis of the indicated VC for a project that GL, in partnership with the Ministry of Local Government and Public Works (MLGPW) is implementing to promote gender-inclusive Local Economic Development (LED). The programme is supported by the Embassy of Sweden in Zimbabwe. In particular, the market research was conducted to shed light on the opportunities, challenges, viability of existing and potential markets, employment opportunities, product expansion, market viability, value addition opportunities, quality improvement, input availability, and recommendations for each value chain.

The LED programme seeks to contribute to reduced poverty and enhanced livelihoods for women and youth through employing market systems approaches that are gender-responsive. The intervention aims to increase the competitiveness of micro, small and medium enterprises (MSMEs) leading to increased incomes and improved standards of living for the targeted women and youths in 12 Centres of Excellence (CoEs) made up of seven urban and five rural councils in Zimbabwe. The research under-taken was thus expected to provide evidence-based information to programme design and implementation of the LED project. Below is a summary of key findings that are specific to each of the selected VC.

SECTOR-SPECIFIC KEY FINDINGS

The following sections provide sector-specific summary findings for seven selected value chains from the twelve participating councils. The criteria adopted highlights five main interest areas in view of developing the LED project namely: status of the market system, sector relevance to the target groups, opportunities for inclusive growth, feasibility to stimulate change, and climate resilience and/or environmental sustainability of the value chain.

A more detailed analysis of the VC is provided in section 4, followed by and in-depth dive into the key value chain stages of input supply, production or processing, marketing, and consumption. The section also provides maps for each value chain analysed, indicating the enabling environment, market actors and activities, and market services. Each section also contains a review of the political-economic context and is concluded with recommendations for the VC.

Summary Tables

Table 1(a): Summary Market Value Chain Analysis for Horticulture (Mushroom, Flowers and Chillies)

HORTICULTURE				
		Mushroom	**Flowers**	**Chillies**
Market system				
0	**Status of value chain development for the target group**	Mushroom - Ideation stage: Most of the target beneficiaries have not started anything with the exception of a few who have been in the trade. Manyame RDC identified and started land clearance on the site.	Flowers - Start-up stage: Mostly working independently and at various stages of development. Some have backyard ventures and are not very structured. Masvingo City has identified a place for the enterprise.	Ideation Stage: Leveraging on ADRA Centre of Excellency for horticulture about 40km from the proposed project site, the Umguza RDC has drilled a borehole and is clearing 5ha to set-up an irrigation scheme. A first RDC scheme in Umguza earmarked for export horticulture production.
Relevance				
1	**Nature of target group's participation in the sector**	Mushroom is mainly grown by women, and youth have also found it lucrative due to its short gestation period. Mainly involved at production stage of the VC, with most of the mushroom sold fresh without any further value addition.	Primary production, limited processing though with little value-addition among women and youth groups. Mostly working with cut flowers and dry flowers selling to local market. Full integration of smallholder farmers (SHF) in both local & export market not yet realised - issues of capacity gaps & the contractual and proprietary nature of the industry.	Production with minimum value-addition mostly by women who traditionally dry vegetables for household consumption and little local marketing.
2	**Involvement and contribution of target (and other) groups**	Women equally participate in this VC - low barriers to entry and less labour intensive. Requires those with land to work on.	Production at commercial level is a preserve of a few white farmers. Most women are involved in the selling of the flowers, with a few involved in the farming of the flowers. Most women in production are doing it at a small scale - backyard with a focus on other types of flowers than red roses - which has huge export potential to The Netherlands.	Provision of labour during irrigation set-up and crop production. Governance of the scheme by RDC and target group will be defined in the constitution yet to be in place.
3	**Composition of enterprises**	Largely informal and sector still growing. Looks as if it is not well structured and there is need for organisation leading to formation of a formal association that can represent the interests of the farmers and consumers.	Still dominated by few farmers who tend to dominate the export market. Too much information asymmetry and data not easily and readily available. Most of the women sell the flowers on the streets, with very little or no formalization of their businesses.	Chilli enterprises in Matabeleland North and South are a mix of commercial and small-scale producers and informal small and micro-enterprise level producers. Wildlife friendly measures driving chilli production for communities living adja-cent to national parks.

		Mushroom	Flowers	Chillies
Opportunities for Inclusive growth				
4	**Sector growth**	There is huge potential for growth in the sector. Current levels still low and there is room to increase production. Marked growth in mushroom export figures (Germany USD$1.4B; Netherlands USD$1B; France USD$830M & UK USD$830M). Currently known growers not quantified - few and unable to meet demand. Mushroom export markets, not much happening due to fragility of the commodity that calls for stricter protocols over and above those common to fresh produce.	Significant potential for both local and export market. There are stringent export requirements with very low participation of SHF. Local and regional markets are small with a growing international export market. Currently for Zimbabwe, Netherlands is the largest trade partner followed by UK to a much smaller extent. Netherlands remains the largest due to the global flower market structure that makes it the distribution/ aggregation centre for further exporting to other international players. Globally, in 2021 (25bn) 2018 (20-25bn). Zimbabwe exports averages USD$11M though this seems to be an underestimate. The global market is on rebound after the COVID-19 slump.	Significant potential for local spice market for both fresh and dried chilli. Regional export market, working with an aggre-gator for economies of scale, will enable for penetration into international market.
5	**Conduciveness of political economy**	Mushroom sector possesses the greatest potential for growth due to low barriers for entry and low need for land. Govt promoting growth of the sector through policy initiatives to increase production and consumption. NGOs also promoting mushroom production working with women and youth in most rural and urban areas in the country.	The land reform has undoubtedly affected the production of flowers on a large scale - most of the farmers were displaced now only a few remain and they seem to have monopolised the export market. Due to information asymmetry, entry into the export market a challenge especially for the SHF, seems monopolized by a few farmers who seem to "control" the market esp., exports from the country.	The horticulture sector formulated a Horticulture Recovery and Growth Plan, with export targets for high value commodities. The MWACSME in Umguza is actively working with council to train women and catalyse economic empowerment programme.
6	**Availability of market players**	A lack of a formal association for the mushroom sector has potentially made it difficult to gather information on numbers in the sector. Key players include some corporates such as Dany Dairy and individuals who are farming the crop. Retailers, hotels and food processers available to take on board mushroom. Main actors are individuals who are at different stages of sophistication in terms of their production systems.	Export market dominated by few individuals who seem to have captured the market. SHF main producers for the local market. Other plays include a few retail shops who want to venture into selling of the flowers. Masvingo Polytechnic offers a diploma in Horticulture providing a ready supply of qualified graduands who can play a significant role along the value chain.	Umguza is 60km from Bulawayo city, with numerous private sector agro-processors looking to out-contract producers for spice value chain. Local market actors in Bulawayo include; supermarkets, Cairns, and ARDA. Export market aggre-gators available to work with smallholder chilli producers include Nhimbe Export.

7	**Willingness of market players to change**	The market is still very uncoordinated and potential for bringing sanity into the market and grow it. Seems dominated by SHF and there is potential to coordinate and increase production.	Highly unlikely given the monopolistic nature of the market- too few players holding key market value esp., export. Floribunda seems the dominant player in the export market.	The commercial market remains rigid in terms of standards and contractual requirements. However, buyers such as ARDA are potentially willing to work with Umguza producers to generate good quality, and achieve required production volumes.
8	**Likelihood of distortion**	Given the supply and demand gap (not easy to quantify), market distortion is unlikely in the foreseeable future though there is likely to be an increase in the supply of mushroom. Most development agencies are promoting the production of mushroom by SHF and this has potential to increase production.	The sector seems to have too few players currently. The expected increase in production will not likely distort the market as there is still room to increase production. In Masvingo most of the flowers are only available in the streets with retailers such as OK, TM Pick n Pay, Spar and funeral parlous such as Nyaradzo willing to procure flowers from the women. The increase in production will not distort the market but would rather close a yarning gap that currently exits.	The enterprise model is not clear whether the target group are entrepreneurs or employees of the scheme. The nature of the business arrangement needs to be documented and signed off by both parties to foster accountability and transparency.
9	**Sustainability**	The mushroom sector has the potential to transform the lives of the beneficiaries and due to low barrier entry, there is scope for more youth and women to be involved. Potential for all year-round production. Value addition possible and export within the region. Once established there is scope for the activities to be sustainable going forward.	For the majority of the beneficiaries, entry could be difficult as the sector is dominated by a few players. The perishability of the product presents challenges and general product acceptance low in the domestic market with the exception of events such as funerals, weddings, birthdays etc. Possible with dry flowers and not with roses as these has been reported to be a bit challenging to grow.	Possible with a clear business model and governance structure in place. Measures to mitigate risks associated with dependence and on underground water pumping system needs to be put in place.
Environment/Climate Resilience				
		Mushroom seems to have low impact on the environment. It has the potential to remediate and clean the environment as most agriculture waste is used in the mushroom production.	Besides beautifying the environment, flowers were noted for high incidences of environmental pollution through poor disposal of chemicals and potential for attracting insects especially for those doing backyard farming.	Soil health and water testing (quality and quantity) will be critical given the local agroecological context for Umguza. This will inform adoption of appropriate environmentally friendly practices for the proposed cropping systems.

Table 1(b): Gender Links Zimbabwe: Summary Market Value Chain Analysis (Arts and Culture, Fisheries, Renewable Energy and Waste Management)

		ARTS AND CULTURE	FISHERIES	RENEWABLE/ CLEAN ENERGY	WASTE MANAGEMENT AND RECYCLING
Market system					
0	**Status of value chain development for the target group**	Scale-up stage: BHI has been in existence for about 60 years, to empower the less privileged women and youths in the city with survival and hand-craft skills. It is registered as a Handcraft factory under Factories and Works Act (Chapter 283).	Ideation stage: The target beneficiaries have been actively participating in capture fisheries. They are not yet active in fish farming.	Ideation stage: Currently there is one biogas digester constructed in ward 31 being used by the target beneficiaries.	Start-up stage: The beneficiaries are currently working as individuals. They network when transporting their waste to Harare.
Relevance					
1	**Number of target group active in the sector**	The BHI has a total of 474 members drawn from various parts of the City, with women (+35yrs) dominating the sector (78%). Currently targeting 180 new members between 2023 to 2025.	through the Fish Producers Association with a membership of 400 members.	No statistics available. There are few individuals and institutions with bio gas digesters around the country.	No statistics available.
2	**Nature of target group's partici-pation in the sector**	Production of ornamental and utilitarian ilala products. Limited local marketing and selling of utilitarian products produced by individual members.	There are few individuals (small scale fish farmers) involved in fish farming.	There are individuals around the country producing gas for domestic use.	In Kadoma, waste recycling is done by individuals and dominated by women who are mainly responsible for waste picking, cleaning and sorting. In other areas like Harare, there are organised women only groups that are actively participating in the value chain.
3	**Involvement and contribution of target (and other) groups**	BHI enterprise model empowers women and youth with weaving and hand-craft skills as artisans to produce commercial products and received 60% share of the income from sale of products.	Capture fisheries is male dominated. Women mainly involved in selling and value addition activities like smoking/ drying and cooking.	Initial capital required for constructing bio-digesters has been a deterrent factor for the majority of people interested in this sector. People with cattle or other projects that can provide biogas digester feed are mainly involved in production for domestic use.	The sector is dominated by women with limited professional options. Some are involved in manufacturing of hats, handbags etc.
4	**Composition of enterprises**	The BHI model is largely a formal enterprise managed and anchored within the city council's governance system. Women and youth are engaged as artisans of the handcraft factory.	Dominated by large scale producers like Lake Harvest. There are few small-scale farmers around the country and are not organised into groups.	There are individuals and institutions producing gas largely for domestic use. Few groups have been established by NGOs like Environment Africa, SNV and	There are mainly activities are largely informal at individual level. There are groups that have formalized their operations in areas like Harare and

				WWF in different areas around the country.	Bulawayo. There are companies that are also actively involved in waste collection, processing and manufacturing.
Opportunities for Inclusive growth					
5	**Sector growth**	High growth potential given domestic and export demand. Developing a BHI business model canvas to foster circular economy with Lupane and Nkayi RDCs for supply of raw materials, and strategic market linkages with international markets would be essential to unlock this potential.	There is potential for growth given the high demand for fish produce locally. There is scope for export markets but currently the country is importing more fish products than exports. The export sector is mainly dominated by large scale enterprises like Lake harvest.	The potential for growth is limited due to the huge capital outlay required to construct biogases. In addition, most rural communities rely on cow dung for bio-digester feed and the limited number of cattle per household is a limiting factor.	There is potential for growth. It is an easy entry point for women and youth. There is no capital requirement for waste pickers, registration through EMA is free. Government is also encouraging communities to be organized and clean their environments through waste picking.
6	**Prospects for productivity and working conditions improvements**	Productivity improvements likely with adoption of ICT technologies such as auto cad in product design, support through backward linkages and access to finance mechanisms. Working conditions improved with protective clothing.	Productivity likely to improve due to an increase in uptake of fish farming technology and availability of inputs (feed now readily available, as well as fingerlings).	Productivity is limited due to availability of cheaper options in the market like firewood and LP gas. However, there is interest from government to increase uptake of green energy options in the country.	Productivity can be improved through organizing the individuals into registered entities and availing machinery for shredding and bailing. This will reduce transport costs to the market.
Feasibility to stimulate change					
7	**Conduciveness of political economy**	The move to have a ministry on art and culture demonstrates political will. Consolidation of various pieces of legislations across different ministries and departments is now essential towards creating a conducive operating environment for actors in the sector.	There are different pieces of legislation that govern capture fisheries with shared responsibilities between many institutions (Parks and Wildlife, Department of Fisheries, EMA and local councils). The government also pushing for the sector to be organised through the Fish Producers Association.	The sector is governed by the energy policy and there is shared responsibility between Ministry of Energy, ZERA, ZEA as well as EMA. There is also interest from NGOs like Environment Africa.	There is no policy or recognised national association or body that governs the operations of the sector. The sector is however recognised in the national development policy (NDS1).
8	**Availability of market players**	Local market (vendors) is dominated by utilitarian products, while ornamental products are sold through craft centres/shops and aggregators for export and tourists.	There are a number of companies that are supporting fish farming (training, input supply etc.). These include Aquaculture specialists, Agrimarine solutions and aquaculture company. They also buy fish	Government is currently working with NGOs implementing green energy projects. But production is mainly for domestic use. There are no established markets for biogas. The gas bags used	There are registered companies involved in waste collection and processing. These also buy from individual waste pickers and intermediaries.

		ARTS AND CULTURE	FISHERIES	RENEWABLE/ CLEAN ENERGY	WASTE MANAGEMENT AND RECYCLING
			products for sale locally. Export market is dominated by Lake Harvest.	for storing as well as use stoves and other implements are not readily available in the market.	
9	**Willingness of market players to change**	Likely, domestic market for ornamental products can be increased through targeted audience market development. International market is likely to work directly with BHI if it builds internal capacity to provide a similar service to that of current aggregator agencies.	Likely, there are many private companies that are involved in training of fish farmers and supplying inputs like Agrimarine and Aquaculture specialists.	Not likely, there are few players involved in bio digesters (few private companies involved in the supply chain).	Likely, there are more companies involved and government is pushing for waste pickers to be registered entities.
10	**Likelihood of distortion**	While the BHI model has been in place for almost six decades, it needs to be adaptive to remain competitive and economically viable for the target groups to avoid side marketing.	There are a number of active private companies like Lake harvest. The Fish Producers Association can tap in from their experience.	There are few initiatives due to the high costs involved.	There are many interventions being supported by government and NGOs hence coordination is required for waste at regional or national level.
11	**Sustainability**	Likely domestic market is stimulated to absorb ornamental products, and profitable market linkages with international markets are in place.	Likely given the support that is coming from government and council. There is need for the beneficiaries to be registered with Fish Producers Association.	Not likely given the competing labour requirements from farm and off farm activities in rural communities. In addition, the heavy investment required can only be sustainable through external support.	Likely with support from council and other institutions like EMA.
Environment/Climate Resilience					
12	**Environmental Impact**	The Nkayi and Lupane communities have been supported to strengthen and adopt sustainable forestry management and harvesting of ilala palm, enforced through by-laws and traditional authority systems. The ilala palm products are as such organic and environmentally friendly in comparison to the alternative non-biodegradable products.	Production is dependent on weather conditions. Summer season is good for fish production while extremely low or high temperatures reduces rate of reproduction. Heavy rains can damage fish ponds as well affecting production activities.	Generally, not affected by weather and climatic conditions. However, during the rainy season there are competing labour requirements as people will be working in the fields. This may affect feeding of bio digesters.	The sector is generally not affected by climatic conditions. However, rainy season affects waste collection (waste can be easily contaminated).

BACKGROUND 1

Gender Links (GL) put out a call seeking experienced consultant(s) to conduct a market research and analysis of at least two (2) of the five (5) value chains in select geographic areas in Zimbabwe. A team of experts, led by Kainos Musvinu, undertook the market research of all the five (5) of the indicated value chains (VC), namely: **Arts and Culture, Clean or Renewable Energy, Fisheries, Horticulture, Waste Management and Recycling**. The results of the findings are to be used in the Promoting gender-inclusive LED programme that GL is implementing.







Gender Links is implementing a project that is promoting gender-responsive Local Economic Development (LED). The LED programme is part of the economic justice pillar of GL's 2021 to 2025 strategy. The programme seeks to contribute to reduced poverty and enhanced livelihoods for women and youth through gender-responsive and inclusive market systems development. This will be realized through increased competitiveness of MSMEs resulting in increased incomes and improved standards of living for women and youths in 12 councils (seven urban and five rural councils. The LED project has the following specific objectives:

- To develop and cost 12 gender-responsive local economic development plans.
- To create a sustainable model for training and supporting women entrepreneurs in 12 local authorities.
- To ensure that women-owned enterprises have access to council procurement including tenders.
- To enhance women and youth's access to finance, markets, and joint ventures through women's LED networks; learning, and sharing platforms.
- To "walk the talk" by establishing viable LED flagship enterprises in 12 local authorities.

The LED project will be implemented within the Market Systems Development (MSD) approach which aims for sustainability and large-scale, system-wide impacts, and the inclusion of marginalized people in market systems, hence the commissioning of this market research and analysis study to guide GL in its market development interventions. The market research and analysis overall objective was to carry out market research and analysis of the following thematic areas:

Arts and Culture, Clean or Renewable Energy, Fisheries, Horticulture, Waste Management and Recycling value chains. The research was to gather evidence-based information to programme design and implementation for improved performance of micro, small and medium enterprises.

1.1 Context Analysis - Livelihoods state-of-play

Zimbabwe as a nation has been experiencing an economic melt-down stretching for over two decades to date. The early 2000s to about 2009 was characterized by low economic growth due to macroeconomic instability leading to a hyper-inflation phase, the highest in the world, in 2007-2008. To date, the macroeconomy stability remains a challenge as the country has been grappling with managing triple digit inflation levels of late. According to the IMF, annual inflation at the end of 2022 stood at over 240% and as at March 2023 annual inflation was 87.6% according to the Reserve Bank of Zimbabwe (RBZ). Economic growth slowed down to 3.4% in 2022 from 8.5% the previous year according to the International Monetary Fund (IMF). The foreign exchange rates have been unstable. The auction system for foreign currency allocation, controls the formal rate as at mid-April 2023 was at USD1 to ZWL 1100 while in the parallel market, the exchange rate was trading at anything between ZWL1800-2000 for USD1.

The national statistics agency, ZimStat, using an ILO definition, puts the country's unemployment rate at 19% for 2022 even though it is widely believed that the rate is over 90 % when using the definition of those in formal employment only. However, there exists a well-documented duality in the Zimbabwean economy characterised by a shrinking formal sector with an expanding and thriving informal sector employing most of the labour force. The 2017 PICES report estimates that the informal economy accounts for 73% of total employment, 53% of total urban employment and 78% of total rural employment. The informal sector is saddled by, among other key issues:

- Poor working conditions, poor infrastructure and low-income earnings.
- Low levels of skills, including entrepreneurial skills.
- Limited access to ideas and information such as markets information. This is despite high penetration of mobile telephony coverage and other technological innovations.
- Lack of credit finance and limited financial literacy.
- Criminalisation of the sector by regulating authorities.

As indicated above, most of Zimbabwe's employment is now found in the informal sector, where the quality of employment as defined by earnings, vulnerability and working conditions are highly compromised. In addition, specific demographic groups such as young populations and women are in either worse-off situations or excluded in the decent work equation. During the Covid-19 pandemic, unemployment in the country also increased, particularly in urban areas. The extent of informalization in Zimbabwe has caused a rise in vulnerable employment; with many workers in working poverty earning wages and monthly salaries below US$100. The majority of those employed in the informal sector work in unsafe working conditions without social security coverage.

The current unemployment situation requires an intentional approach to promote any MSMEs showing growth potential. This is because, currently, the MSMEs sector (formal and informal) now employs over 60% of Zimbabwe's productive workforce, contributes to over 50% of the Gross Domestic Product (GDP) and constitutes 70% of business in Zimbabwe.



In Zimbabwe, a very large proportion of the working-age population, with a majority of women, make a living in the informal sector

1.2 How Livelihoods Relate to Women including Young Women

Gender inequality the world over, is underpinned by patriarchal, gendered norms that are reinforced at all levels of society, including household, community, institutional and state. Norms are unwritten rules about how to behave. Societies and institutions expect individuals and groups to behave according to those rules, in a particular social group or culture. There are norms defining appropriate behaviour for every social group. Gender norms are particularly harmful to women and girls, because they are driven by unequal power relations, and they lead to social control. This hinders their access to resources and limits their power within most societies, and ultimately perpetuates a cycle of violence and control. Zimbabwe is not spared from such gender beliefs and inequalities.

In Zimbabwe, a very large proportion of the working-age population, with a majority of women, make a living in the informal sector. Often it is a variety of jobs to manage their livelihoods, while only a significantly smaller proportion[1] have paid jobs. The previously mentioned high unemployment rate has risen further, not least in urban areas, and is particularly high among young people and especially among young women.

Women are often part of the informal economy due to harmful gender norms, which limits their access to information to grow their micro enterprises, improve operations, access markets and Business Development Services (BDS). This limits women's ability to integrate into local, national and/or global VC and to benefit from sector, market, and value chain development. Harmful gender and social norms about men managing and controlling money often limits women's economic empowerment and decision-making on business expansion and improvement.

[1] Poverty and Social Impacts of Covid-19, PICES Report, World Bank, Nov.4, 2020

1.3 How Livelihoods Relate to Youth

Youth unemployment remains one of Zimbabwe's formidable challenges. Unemployment resulting in extreme poverty is high in the country among youth especially who comprise 53.6% of the population below the age of 20 years, and 62.9% of the population below 24 years. According to ZimStat (2022), the national unemployment rate for youth (15-34) years was 27%. Unemployment for female youth between the age of 20-24 is at 37.1%, which is higher than that of males of the same age (31.3%).[2] Of the employed young women, the majority are in the informal sector in buying and selling where profit margins are small.

ZIMSTAT provided projections on the situation of the youth in a 10-year period (2016-2025) if nothing is done to improve youth employment and sustainable livelihoods. It is estimated that the cost to GDP is 0.88% per annum if there is no investment towards youth employability. Youth unemployment and underemployment also have implications for the overall wellbeing of a country's social fabric and can increase the possibility of youth indulging in delinquent behaviour, such as crime and violence, self-destructive health habits, and disengagement from society, child marriages and teen pregnancies for girls and young women.

Young people are the most affected, due to little labour market experience, with 98% of people aged between 15-24 and 96% of 15-34-year-olds in informal employment[3]. Lack of supportive policy environment in the informal economy in general and digital entrepreneurship is a serious cause of concern.



Youth unemployment remains one of Zimbabwe's formidable challenges

[2] 2022 First Quarter Labour Force Survey report
[3] United Nations Common Country Analysis (Zimbabwe) 2021

METHODOLOGY 2

The Research Team (RT) adopted a mixed approach to conduct the in-depth Value Chain Analysis (VCA) of the selected five VC to identify the key systemic constraints within the VC and to recommend interventions and business solutions to unlock these constraints and possibly improve value chain productivity, bridge market system gaps, improve economic livelihoods, build resilience and create sustainability in enterprises along these value chains.

An integrated mixed method approach that entailed collection and analysis of primary and secondary data was employed. The approach was anchored on the **systems-thinking approach**, allowing the RT to reflect on the multi-dimensions and complex perspectives around the selected value chains. This was complimented by stakeholder mapping and analysis of actors in these VC as well as identification of strategic partnerships required to facilitate project activities for a transition towards the desired change.

Knowledge and evidence generation were facilitated through agreed set of criteria and tools, that formed the basis upon which a robust research design for desk review, focus group discussions, structured key informant interviews and rigorous analysis of data were conducted. The market research and analysis process w vas divided into three phases, namely inception, data collection, analysis and reporting of findings. A detailed inception report was submitted to GL detailing the RT's understanding of the project, the task at hand, agreed methodology and proposed broad research questions that were used to develop the data collection tools. The research tools were used in the field data collection exercise.

Desk review

A detailed literature review was done by the RT that looked at the GL's programme documents, the 12 CoE proposals, relevant national studies, policies including reviewing related value chain studies and programming by other players within the country and beyond. This helped provide a broader scoping of issues and a deeper understanding on the contextual issues and information around market systems dynamics, economic context, gender dynamics, youth analysis, stakeholder analysis, environmental issues and enterprise profitability analysis. The desk review also assisted to identify knowledge gaps and questions that were then used in the VCs mapping exercise.

Data collection

The aim of this phase was to collect qualitative and quantitative data in a participatory, inclusive, and creative way, which helped the RT to understand the thematic areas more. Consultations with GL staff and seven (7) CoE focal points were held. The seven selected CoE councils were Bulawayo City Council, Manyame RDC, Norton Town Council, Masvingo City Council, Kadoma City Council, Umguza RDC and Zibagwe RDC.

Other respondents consulted during data collection were expert technical staff on the five VCs, public and private sector actors in the VCs, relevant government departments, trade associations as well as the target beneficiaries in the selected value chains. Methods used to collect data in the field included holding *key informant interviews, focus group discussions* with potential beneficiaries and *survey*

questionnaires directed at target beneficiaries. The study team used these survey tools to collect quantitative data from the key value chain actors within the selected five (5) value chains focusing on the opportunities, threats, strengths, and weaknesses in relation to relevance for target group, opportunity for inclusive growth, feasibility to stimulate change for product expansion and value addition opportunities, and to formulate recommendations for market viability for each value chain.

The research tools were pre-tested in Manyame prior to refining them and using them in the market research. The Research Assistants were trained on use of the tools as well as on how to do this specific research.

Sampling

The RT employed purposive sampling techniques to target respondents that were information-rich. Women and youth in the focus group discussions (FGD) were purposively selected to ensure that a wide array of youth and women was included in the research. The team physical went to seven (7) out of the 12 CoEs namely, Norton, Kadoma, Zibagwe, Bulawayo, Umguza, Masvingo and Manyame to draw respondents in the five VC.

Data analysis and report writing

Primary data collected through consultations, key informant interviews and focus group discussions was analysed throughout the tenure of the assignment. Data was transcribed, coded and analysed through qualitative data analysis techniques. Qualitative data was entered into Dedoose and analysed using Thematic Content Analysis (TCA) for common themes in each of the five VC. Quantitative data was also processed and analysed using the same Dedoose. This is culminating in the research findings and recommendations contained in this report.



Umguza LED council visit

2.1 Limitations of the study

The implementation of this study was relatively smooth. The team managed to gather and analyse adequate valid and reliable data needed for compiling a solid report with conclusions and recommendations. However, there are some few limitations encountered during the study as outlined below.

Secondary sources. While the proposed value chains by various RDCs are already being considered for funding through Gender Links, they all lacked technical feasibility studies to serve as justification for the proposed interventions. The use of biogas digesters, green house and drip irrigation technologies in proposed enterprises would require such studies to inform effective design and delivery. While general infor-mation on these technologies is available, context specific literature would be required for value chain analysis to provide useful recommendations for the proposed enterprises. This meant more information had to be collected from proxy or related projects than originally planned from primary sources.

Primary data collection. Conducting the study in April, with Easter and Independence holidays in two of the weeks, meant that some of the face-to-face interviewed had to be done virtually with some stakeholders due to non-availability. In addition, there were challenges securing appointments with government authorities in view of height-ened security and political activities given the up-coming national elections around July or August. The team ended up requesting for documents to review as few appointments could be secured with ministry officials.

During data collection, the research team realized that most of the proposed value chains are still at ideation stage (refer to summary tables), this meant most of the targeted women and youth were not actively involved in the enterprises. As such, the focus group discussions could not generate useful insights for the specific value chains such as for mushroom, fisheries, chilli/peas, and flowers. The researchers in this instance relied on the key informant interviews to generate insights for the value chain analysis.

The initiatives are being coordinated by gender focal persons within the different councils. These are not technical people in terms of the different VC; hence they lacked the technical knowledge required for in-depth analysis of the value chains. As such the study took advantage of the linkages between councils and different stakeholders in the value chains

Value chain findings. While the summary findings on relevance, opportunities for inclusive growth and sustainability can be inferred for other value chains not included in the sites visited, the in-depth analysis and market map analysis is limited to visited sites. The local settings may not be applicable to the other councils intending to implement similar projects for example waste recycling, and basketry value chains.

3 MARKET RESEARCH ANALYSIS FINDINGS

3.1 Gender and Environmental Observations

Literature reviewed shows that in Zimbabwe, as in many other parts of the world, climate change and biodiversity loss disproportionally impact on already vulnerable groups in society. Those who suffer from socio-economic inequalities are for example also more likely to be affected by disasters such as droughts or floods. Conservation and environmental spaces are usually male dominated, and there is a need to fill the gap and ensure that girls and women are present at the table dealing with these issues.

Following the United Nations Framework Convention on Climate Change (UNFCCC)'s Gender Action Plan (GAP) at the Conference of Parties (COP25), Zimbabwe has since launched its Climate Change Gender Action Plan. The development of this action plan was informed by a gender analysis of climate change that was carried out in 2020 to support the systematic mainstreaming of gender in climate change.

The adoption of the GAP indicates an acknowledgement that it is crucial for women to establish their own green local communities, manage their own environments to fight against the impacts of climate change, and it encourages women to participate in climate monitoring operations.

With the advocacy work of Gender Links and other like-minded institutions, the government has adopted a gender-responsive budgeting (GRB) approach. This is a tool that directs government planning, programming and budgeting that contributes to improving gender equality and the fulfilment of women's rights. Given this positive move, the government's planning of resources needs to address climate-related gender inequalities.

"It has been noted that women and men are differentially affected by the impacts of climate with women bearing the greatest brunt of the impacts of climate change. It is therefore important that plans, strategies, and budgets are gender sensitive and gender-responsive to address climate change-related gender inequalities."

Honourable Nqobizitha Mangaliso Ndlovu,
Minister of Environment, Climate, Tourism, and Hospitality Industry.

An advocate of environment and gender, Shamiso Mupara, founder of Environmental Buddies, believes that women in Zimbabwe and Africa are in constant contact with the natural environment during their daily chores of looking for water, firewood, wild fruits, and agriculture. Land degradation makes all the above resources scarce, in such a manner that women are now walking longer distances to look for these resources. Consequently, women are less able to confront climate change. During extreme weather such as droughts, cyclones and floods, women tend to work more to restore and secure household livelihoods. This leaves women with less time to access training and education, develop skills or participate in the economic mainstream, thus gender equality remains low.

3.2 Sector-specific Reports for Each Value Chain

3.2.1 Arts and Culture Value Chain - City of Bulawayo

Sector Overview

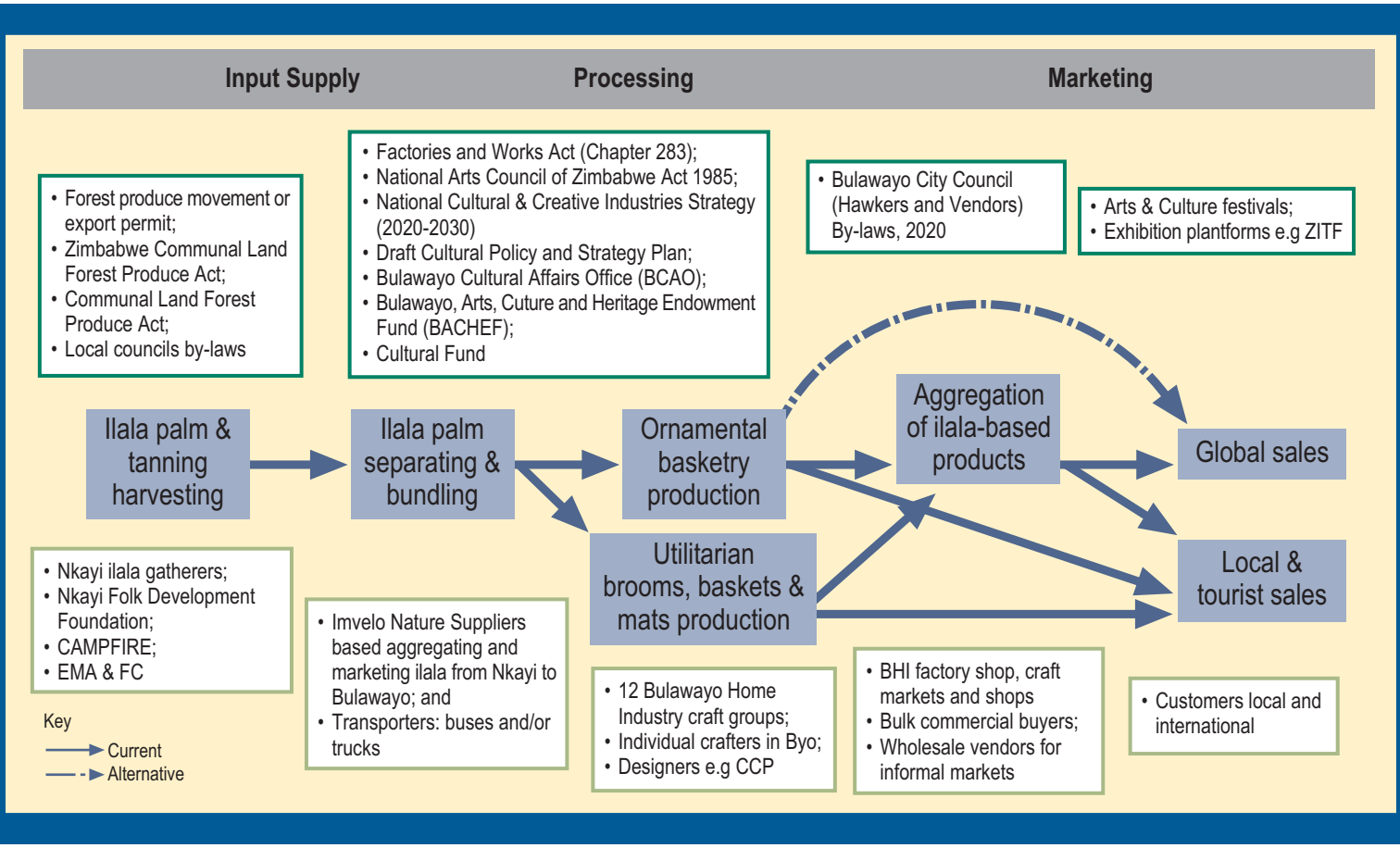
City of Bulawayo is regarded as a centre of cultural excellence, leading in the arts and culture sector endowed with a range sub-sectors or value chains which include traditional-based fashion, dance, music, food, poetry, literature, indigenous knowledge, and hand-craft work. Within the hand-craft sub-sector, the value chains for hand-crafting of basketry and mohair weaved products are key parts of the city of Bulawayo's cultural assets, anchored on a rich diversity of minority cultural expressions, and a product of the city's historical industrial base housed under the Bulawayo Home Industries (BHI). The BHI has been in existence for more than 60 years now since its establishment in 1962. It was later registered under the Factories and Works Act (Chapter 283) in 1982, as a Hand-craft Factory. The BHI is a training centre for girls and women, which seeks to empower the less privileged women and youths with survival and hand-craft skills. The targeted participants are trained in handwork skills largely got the value chains which include ilala, batik basketry, knitting and mohair weaving. Dominated by women and youth, these value chains add to the centuries-old mix of cultural expressions of ground-breaking artistic originality and world-renowned cultural legacy in the city. A deep-dive value chain analysis was done for the hand-crafting of ilala basketry under the BHI, to generate market analysis evidence that can provide pointers for the city's hand-craft sub-sector.



The BHI is a training centre for girls and women, which seeks to empower the less privileged women and youths with survival and hand-craft skills

The ilala hand-craft basketry value chain presented below provides insights into findings on the enabling environment, key activities and market support services involved.

Figure 1: Basketry Value Chain Map for BHI



Basketry value chain actors and activities

Input Supply: The ilala basketry value chain uses readily available organic raw materials, the palm fronds and tanning products sourced from local trees. The ilala palm fronds supplied to BHI are harvested from Nkayi district by rural communities living adjacent to community forests. The harvesting is done by both women and men, who are also responsible for separating the hard and soft fronds, and bundling them for selling locally and distant market such as Bulawayo through vendors. The locally purchased ilala is processed by artisans into various products for either own utilisation or local sales.

The ilala vendors are largely informal and operate as individuals. However, given the huge amounts required by BHI of ilala as a given time, a group of ilala vendors operating at the main bus terminus marketing stalls (Renkini), is organised as Imvelo Nature Suppliers to aggregate and supply ilala in bulk. For transportation, they either hire transporters such as trucks or use local passenger buses at a fee. The transportation requires a permit from the Forestry Commission, which governs forest produce movement across areas. Once the ilala gets to the city, its marketing will be governed by the city's Hawkers and Vendors by-laws, which charges rates from marketing stalls.

Processing: After the ilala is purchased from vendors at the main marketing stalls, the hard ilala palm fronds are weaved by local artisans into utilitarian products, mostly brooms and mats for the local markets. The soft is ilala is purchased largely for commercial products for a wide range of basketry products, by artisan companies such as BHI and individuals. The total

registered artisans at BHI are 474, consisting of 74% women (+35 years), 25% youths, and 1% men. Most of these members are now seasoned ilala basketry artisan who have worked with BHI for more than two decades in the hand-craft value chain. An additional 180 members will be added with the advent of possible funding from Gender Links.

Marketing: While individual artisans are responsible for their own marketing of products, the BHI marketing is coordinated and done largely through the BHI factory shop for locals and tourists, and exhibitions during Arts and Culture Festivals, and the Trade Fair events such as Agricultural Shows and the Zimbabwe International Trade Fair. These platforms have been strategic for BHI to engage with aggregators, artisan companies, designers and individual buyers of ilala basketry products. The factory shop has worked with aggregators such as Zimbabwe Export Cooperative, National Handcrafts of Zimbabwe, Design Africa, and Collaborative Craft Projects. Some of these aggregators such as Collaborative Craft Projects have supported the BHI members for over two decades to develop international designer products for marketing in international markets such as to Dubai, Australia, UK and USA.

Policy Environment

Input Supply: The main inputs are ilala palm fonds and tanning products from trees sourced mainly from Nkayi and surrounding rural communities. The harvesting of ilala is governed by traditional authorities under the Communal Land Forest Produce Act, which regulates the exploitation and protection of forest produce within communal lands. Its movement to Bulawayo requires a Forest Produce Movement or Export Permit from the Forestry Commission, which is valid for at most a year. There are also council by-laws regulating the produce market space at source and in transit. As such, consolidation of these various pieces of legislations across different ministries and departments is now essential towards creating a conducive operating environment for actors in the sector.

Processing: While the arts and culture sector is rich and mature in terms of historical and cultural value, its recognition as a strategic sector under the current Ministry of Youth, Sport, Arts and Recreation and consolidation of guiding policies is still at infancy stage. The National Arts Council of Zimbabwe Act of 1985 provides a framework for all forms of arts and culture development and promotion in the country. A detailed National Cultural and Creative Industries Strategy (2020-2030) is in place to facilitate for action delivery. The sector is however battling with structural issues which include: governance, capacity, institutional framework, administrative framework, venues and infrastructure, and distribution and reception. Progressive steps are being put in place to address some of these challenges. In the recent past, the city of Bulawayo launched the Bulawayo Cultural Affairs office (BCAO), to act as a focal point of intersection between local government, creative civil society, artists and cultural professionals. The office's mandate is to facilitate access to cultural spaces and facilities, promote community participatory arts and further extends technical expertise to local government on culture-led Sustainable Development Goals (SDG) domestication and localisation. In order to execute these duties, drafting of a Cultural Policy and corresponding Strategic Plan for the City is currently underway. Concurrently, a Bulawayo Arts, Culture and Heritage Endowment Fund (BACHEF) was launched to provide the city's sustainable funding resource base for artistic and cultural expressions. This should enable the city to collaborate closely with institutions such as the Culture Fund, which helps to mainstream innovative solutions into sustainable culture for development interventions and extends sub-grants to the creative sectors. However,

the current funding support is mostly skewed towards the dance and music or entertainment sub-sectors of the Arts and Culture sector.

Marketing: The local marketing of utilitarian products is largely by vendors in the informal sector. The city has by-laws in place for Hawkers and Vendors, which specifies the designated marketing places and rates for the marketing stalls. The city also hosts a number of arts and culture festivals, market exhibition expos and platforms such as the Zimbabwe International Trade Fair (ZIFT). These platforms are regulated by the council by laws and have remained strategic marketing vehicles for the basketry products especially for the international export market.

Basketry sub-sector relevance for target group

The BHI model, by nature of its registration, is a formal business enterprise managed and anchored within the city council's governance system. It has a clear empowerment thrust for its target group in terms of skills training and income benefits. The skilled women and youth in turn provide weaving and hand-craft skills as artisans to produce commercial products for both local and international markets. Indications from council are that the target group ideally receive 60% share of the income from sale of products, while the council retains the balance for over-head expenses. While this model appears to be economically beneficial for women and youth, it does not offer them opportunities for growth in terms of becoming entrepreneurs with access and control to business governance and marketing processes. This threatens the sustainability of the BHI enterprise in terms of attracting and maintaining skilled women and youth. Resultantly it affects efficiency in delivery, which impacts negatively on customer relationships.

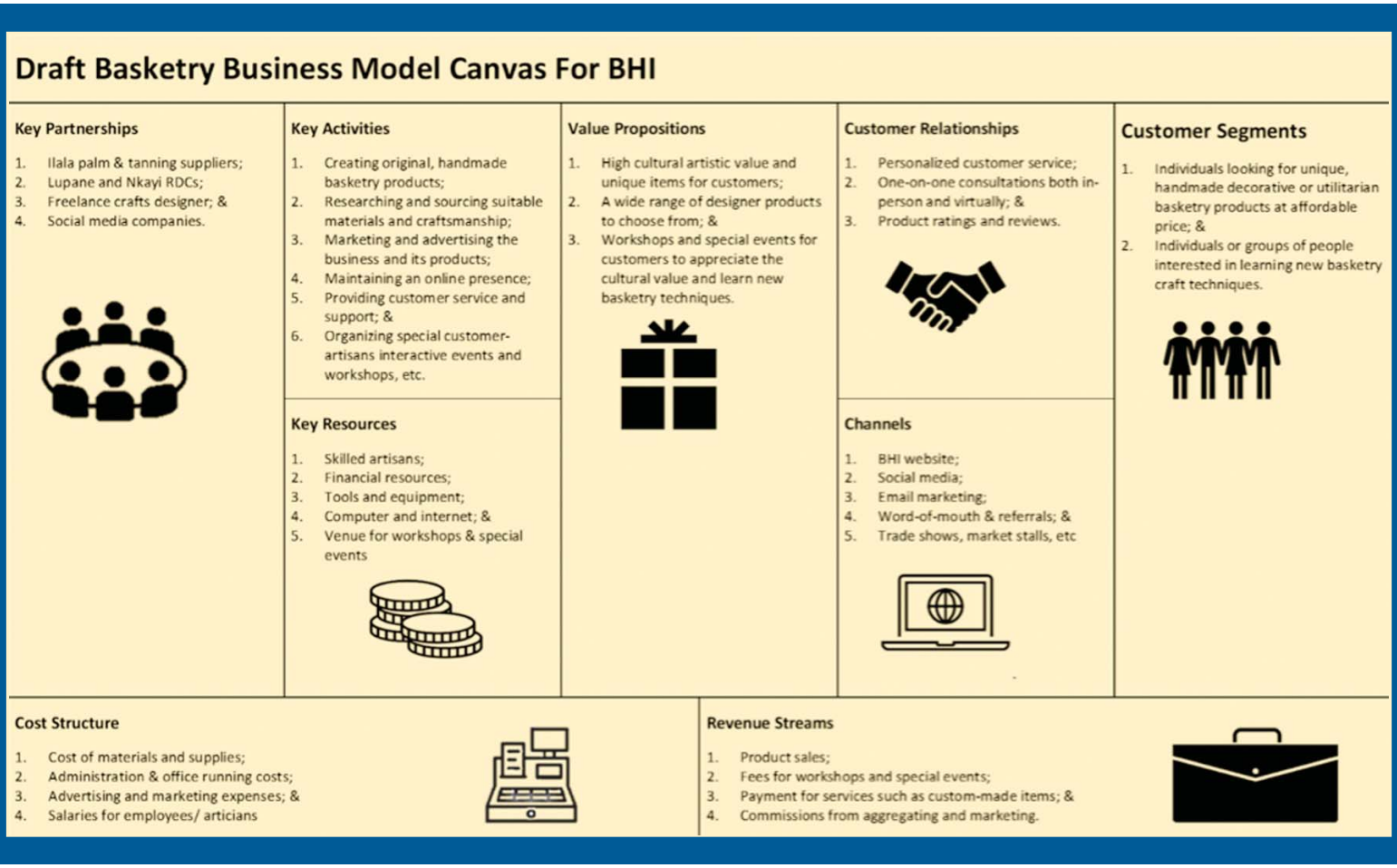
Opportunities for inclusive growth

The continued interest from international markets on ilala basketry products, as evidenced by bulk orders of up to 600 units of large sized ilala basketry (refer picture insert), it is testimony to the growing demand from international market. There is scope to stimulate increased local demand for commercial ornamental ilala products. In order to reach this potential and improve productivity, a number of issues needs to be addressed which include: adoption of ICT technologies such as auto cad in product design; purchase of computers and related networking accessories such as good internet connectivity; improving efficient supply of ilala palm from Nkayi and Lupane districts; and consider running BHI as a Strategic Business Unit (SBU) for the council with a clear Business Model Canvas (BMC) in place. Based on the insights generated during this value chain assessment, below is an illustration of potential BMC model that the SBU explore further. This approach will go a long way in unlocking financial mechanisms and opportunities which are already accessible to other similar actors in the Arts and Culture sector.



Ilala basketry

Figure 2: An Illustration of the Business Model Canvas for BHI



Feasibility to stimulate change

The move to have a specific ministry on arts and culture demonstrates political will. This however needs to be coupled by a process to consolidate the various pieces of legislations across different ministries and departments. This should be complimented by the BMC indicated in the section above, as a vehicle grow the sub-sector. The market actors are available both at local level which is dominated by vendors selling utilitarian products, while tourists and export markets are more keen on ornamental products. Targeted audience marketing through investing in customer relationship building will go a long way in guaranteeing increased domestic market for ornamental products, and direct linkages with export markets. The BMC approach can therefore facilitate for BHI to build internal capacity to provide a similar service to that of current aggregators linking with export markets. It will also allow for adaptive management in order to adjust to the macro-economic context, while remaining competitive and economically viable for the target groups.

Environment Considerations

Entry points for the ilala basketry value chain to demonstrate environmental sustainability exist at various levels. At the input supply level, the Nkayi and Lupane communities have been supported to strengthen and adopt sustainable forestry management and harvesting of ilala palm, which are enforced through by-laws and traditional authority systems. The ilala palm products are as such organic and environmentally friendly in comparison to the alternative non-biodegradable products. These aspects however need to be amplified for a clientele base that is increasingly demanding environmentally and socially sustainable products.

A detailed discussion with key actors and project stakeholder provided insights into the strengths, weaknesses, opportunities and threats within the value chain. The summary below presents the findings which are essential in providing pointers to leverage on and risk mitigation areas for the strategic business unit development process for BHI.

SWOT Analysis

Table 2: Basketry Value Chain SWOT Analysis

Strengths	Opportunities
• Basketry is a mature value chain, dominated by women who are primary targets for economic empowerment; • City of Bulawayo is regarded as a centre of cultural excellence that advances cultural rights and champions expression and creativity of artistic talent; • Relatively low start-up capital (crafting skills & ilala palm) for women and youth as target groups; • Sector has good political will supported by a policy framework and national strategy in place; • Ilala palm harvesting, processing and products are environmentally friendly; • High local and international demand of ilala palm basketry products.	• More women and youth can participate in the sector with ease; • High potential for economic sector growth; • Circular economy can be strengthened through linkages with suppliers of ilala palm in Nkayi and Lupane RDCs; and • High potential for youth empowerment through capacity building in ICT for designing and marketing of products.
Weaknesses	**Threats**
• The BHI falls under the Cultural and Creative Industries (CCIs), which are fragmented; • Lack access to public and private funding; • Lacks business research and development to provide strategic decisions; • No direct market linkages with international markets; • BHI model continues to engage women and youth largely as artisans and not entrepreneurs; and • Current cultural policy not legally enforceable.	• Over exploitation of ilala palm and other trees used in tanning process; • Unreliable and inefficient supply of raw materials; • Inability to meet increasing market demand due to limited skilled crafters; and • Side-marketing of products.

Sector recommendations

- BHI needs to operate as an enterprise with a clear marketing strategy. It also needs to diversify its empowerment model beyond handcrafts to include soft skills like marketing and business management.
- BHI needs to acquire relevant skills and capacity, through development of in-house services similar to those currently offered by aggregators, to establish direct linkages with the end markets.
- BHI has no business strategy and risk mitigation plan in place to penetrate on export markets directly. Developing a BHI business canvas model will be an entry point to stimulate direct export market engagement for the basketry and mohair enterprises. This requires the BHI to be governed as a strategic business unit for the city council, is co-managed and co-governed as a profit-making entity by the council and target groups.

3.2.2 Mushrooms Value Chain - Manyame RDC

Sector Overview

Mushroom production in Zimbabwe is largely done on a small-scale mostly by urban and peri-urban farmers. Production is largely confined to these areas due to their proximity to the market and the need for cold chain. In most rural areas, it is women who are into mushroom production, with most of them involved in forest harvesting of indigenous mushroom[4] which is largely sold along the roadside.

Mushrooms are found in three varieties, the edible mushrooms, which can be used as food; the non-edible mushrooms, which can be used for medicinal purposes and the poisonous type mushrooms, which kill when consumed. In Zimbabwe, there are largely two varieties of cultivated mushrooms and these are the Oyster *(pleurotus)* and the white button *(agaricus bisporus)*. Mushroom, also known as "ground meat" is highly nutritious and a good source of vitamins, minerals and folic acid. It is also called the future vegetable and is an excellent guarantee for food security, malnutrition and has medicinal value.

The world mushroom market is projected to grow from 15,25 million metric tonnes in 2021 to 24,05 million metric tonnes in 2028[5] due largely to the increased healthy consciousness among the consuming public. Many people are now aware of the health benefits of the product and this is also coupled by a growing vegan population across the world.

The growing middle class and the demand for healthier foods coupled with good climatic conditions for the production of mushroom especially oyster is likely to spur mushroom production in Zimbabwe. While mushroom production in Zimbabwe presents a growing opportunity for the empowerment of women and youth, sadly its production and marketing, is still not organized, with consumers indicating a preference to shift to mushroom consumption but not knowing where to get the product on a sustained and continuous basis.

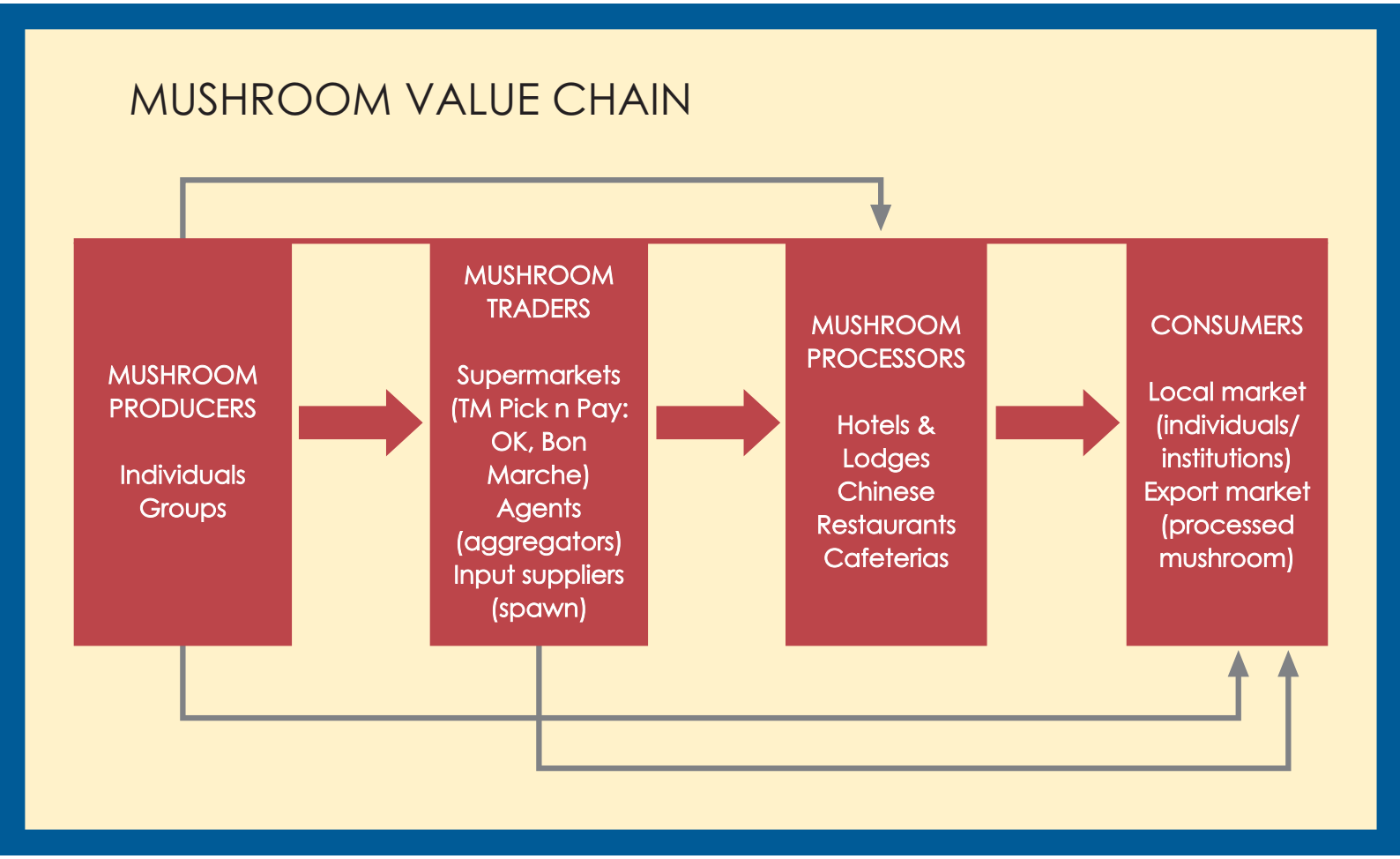
[4] Indigenous mushroom varieties include nhedzi (amanita zambiana), huvhe (termitomyces species), zheve (cantharellus densifolius), pfirifiti (cantharellus longisporous), chihumbiro (cantharellus cibarius), & dindindi (boletus edulis)
[5] Fortune Business Insights (April, 2022). Available at: https://www.fortunebusinessinsights.com/industry-reports/mushroom-market-100197

Mushroom value chain map

The major mushroom producing countries include China, USA, Netherlands, Italy, France, Poland, Ireland, United Kingdom, Canada and India, with the first three accounting for the bulk of the world market. Globally, most of the mushroom is traded in processed forms like frozen, canned, pickled, and dried and other value-added products like soup powder, chips, paste, ketchup, noodles, pasta, biscuits, nuggets, mushroom-based flavour enhancers, as an additive in beverages and beauty products which ultimately increases the product's shelf life and value.

The mushroom value chain includes input supplier, producers, traders, processors and consumers who each play a critical role along the different nodes of the value chain. For instance, most of the mushroom is produced by individual women and youth who directly sell locally or pack and send to different supermarkets, hotels, restaurants in and around Seke District and the neighbouring Chitungwiza, Chivhu, Harare and Marondera town. The nearby Mbare Musika and Guzha/Chikwanha Market present a huge opportunity for the mushroom farmers to access a wider local market for both processed (dried) and fresh mushroom.

Figure 3: Mushroom Value Chain Map



Market actors

The main actors involved in the mushroom production in Manyame District consisted of individual farmers, traders, wholesalers, retailers, and consumers. These play different roles at different nodes of the value chain with farmers (mostly women) involved in production and marketing of the mushroom. For the indigenous mushroom, women are involved in the collection of the mushroom in the forests and sell along the roadside and to markets such as Mbare Musika and Guzha Market in Chitungwiza. Most of the mushroom (oyster & white button) produced is sold as fresh mushroom with very few instances where the mushroom is processed, packaged and sold. Demand for mushroom is growing with some women having managed to secure contracts to supply fresh mushroom in Harare to hotels, Chinese restaurants, retailers (TM Pick n Pay, OK, Borne Marche) and individuals, though supply is not consistant and is unable to meet current demand.

Market services

The market for mushroom is highly unstructured and the local market seems to be devoid of any standards pertaining to packaging, weights, measurement, quality standards and this has often resulted in price variations which have ultimately affected the viability of the different enterprises. Mushroom requires cold chain and there are prospects for a cold chain system being developed at Guzha Market[6] which is at advanced stages of completion. This presents a huge opportunity for increased production of horticultural produce that needs cold chain in the district. Mushroom production in the district is likely to increase spurred by the availability of cold chain in the district. Efforts to harness this investment in cold chain should be targeted at improving the transportation system for carrying the mushrooms to the market.

The district is strategically positioned to easily access both the domestic and international markets. The road network and close proximity to the Robert Mugabe International Airport presents a huge untapped opportunity for increased mushroom production. Spawn[7] producers are mainly in Harare and easily accessible to the farmers. Access to finance for women and youth is through mainly internal savings and lending (ISAL) with some groups saving between $5 - $50 per member per month. Formal finance schemes are not readily available though Empowerment Bank once visited the farmers and gave them application forms. Technical advisory services are largely available through the public sector - Agritex works closely with the farmers to monitor their enterprises and provide technical services.



The newly built 30 tonne cold storage facilities at Guzha/Chikwanha Market in Manyame RDC

[6] Through funding and support form Save The Children, Manyame RDC, has built a 30-ton cold chain facility at Guzha Market which is almost 95% complete and this will be open to use by farmers.
[7] This is the genetic material that is used to grow mushrooms.

Market enablers

The current production levels are not meeting local demand in the country and there are various initiatives to increase production of mushroom to meet local demand. The initiatives under the Horticulture Recovery and Growth Plan (HRGP) under the National Development Strategy (NDS)1 will largely spur the growth of the mushroom sector. The Manyame RDC is providing land, technical and marketing support which will likely assist the women and youth as they embark on mushroom production. The local authority bye-laws review process currently under way present an opportunity for the realignment and review of the existing by-laws to ensure that they promote entrepreneurship and urban agriculture. Opportunities for establishing a hub and spoke model[8] around established mushroom farmers in the district will increase knowledge transfer, mentoring and coaching of new market entrants and help improve standards and increase production within a short period of time.



Mushroom Farming Transforms Rural Women Livelihoods

Mrs. Erica Kubvoruno joined the Red Lipstick Movement, a Christian group for women in business, where she was motivated to venture into business. In 2019, she started growing oyster mushroom on a 20 metres x 5 metres mushroom hut. Due to COVID-19 lockdown, she lost 30 kilograms imported spawn (value at US$245) as a result of business closure. When business resumed, she embarked on a door-to-door marketing strategy in addition to strategically positioning herself in high traffic areas in Harare and Chitungwiza. To improve her business, she invested in a solar powered water pumping system in addition to procuring a delivery vehicle. On average she harvests 85 - 100 punnets from five-kilogram spawn over a period of one month trailing off to 60 - 70 punnets. Erica sees herself producing own seed and exporting mushroom in the next three years. She has roped in a business partner, Miriam Chikanya, for sales and marketing. Her advice to other women interested in the business is that patience, honesty and discipline are key to success. The presence of the 30t cold chain facility at Guzha market will likely spur growth of her mushroom business, as this has been one of her major challenges.

Sector relevance

Zimbabwe is endowed with good climatic conditions for the production of mushroom especially the oyster variety. Mushroom production is a low barrier entry intervention and has quick returns with most of the needed substrate, especially for oyster mushroom, easily available at the household and farm level as agriculture waste. Due to these attributes, NDS1 has identified mushroom as a low hanging fruit and as a food and nutrition security for most households. It requires low investments and it's an ideal crop for small scale farmers (women and youth) and provides a high return per square metre, with an estimated yield of 150 kilograms per square metre. Mushroom takes 30 days to maturity. This resonates well with youth who are known to be mobile and shun agriculture and only want to invest in initiatives that provides quick returns and have low investment requirements. In the mushroom value chain, youth indicated that

[8] There are a couple of established mushroom farmers in the district who can easily be used to mentor other aspiring mushroom farmers to improve the capacity of the women and youth who expressed an interest in venturing into mushroom production as most of them expressed low knowledge and a lack of skills in mushroom production.

they have a role to play along the value chain with most preferring to take part in the tertiary stages of the value chain such as processing and the provision of services to the farmers such as transport and marketing. It has been observed that most of the customers are not aware of where to get the mushrooms since the market is unstructured and this has created an opportunity for youth who are technologically savvy to use social media platforms to help women farmers market their mushrooms both locally and abroad.

Sector growth

The mushroom value chain presents huge opportunity for growth both domestically and internationally as the current production levels are failing to meet market demand. In the mushroom export market, not much is happening due to fragility of the commodity that calls for stricter protocols over and above those common to fresh produce. There is unmet demand in the domestic market for mushroom and room to increase production and value addition of the mushroom. There is scope for tapping into value addition considerations that address cold chain challenges, for example, preserving mushroom in brine. The presence in the district of a 30-tonne cold chain facility will likely spur the growth of the horticulture sector in general and mushroom farmers are expected to also ride on the bandwagon.



Feasibility to stimulate change

Mushroom production is likely to spur local economic development in the district as more women are geared to participate. With proper training, financial support and proper integration into the mushroom production, the women and youth in Manyame district have demonstrated their intention to venture into the mushroom production. The infrastructure envisaged to be set up and the political will from the local authority has brought in a new business culture which is likely to support the business enterprises.

Environmental considerations

Mushroom production makes use of farm agriculture wastes as bye products in its production. According to Food and Agriculture Organisation (2007) the mushroom spent substrates can be recycled and used as animal feeds, soil conditioners, fertilizer, and used to produce other mushroom species. This makes mushroom production an environmentally friendly enterprise. Mushroom production is likely to remediate and clean the environment, and its production requires small pieces of land. The low land requirement resonates well with the target population as women and youth are known not to have access to land.

SWOT Analysis

A SWOT analysis done for the mushroom project revealed the following opportunities, strengths, weakness and threats for the mushroom enterprises.

Table 3: Mushroom Value Chain SWOT for Manyame RDC

Strengths	Weak nesses
• Low barrier entry enterprise. • Provide quick returns and a potential income generator for low-income households. • "Ground meat" - highly nutritious and a good source of vitamins, minerals and folic acid.	• Low technical skills among women and youth. • Local production of spawn remains a challenge, most sourcing individually and directly from South Africa - adulterations, accountability and professionalism challenges.
Opportunities	**Threats**
• Ready market as current local production is not satisfying local demand. • Availability of cheap material for construction of mushroom houses and substrate. • Conducive climatic conditions for production especially oyster mushroom. • Leverage on the Guzha Fresh Produce Market with newly built state of the art 30 tonne cold storage facilities (export potential + close proximity to R. Mugabe International Airport).	• Geopolitical instability affecting supply chain and markets. • Vandalism and theft especially of infrastructure affect communication & power availability. • High expectations among project beneficiaries could potentially affect the project. • Economic instability likely to affect viability of the enterprises - local currency vs USD$.

Sector recommendations

To enhance efficiency and effectiveness in the mushroom value chain, it is recommended that:

- **Capacity development:** It is important to ensure that entrepreneurship training is offered to overcome fear and inculcate a mindset change among the women and youth mushroom producers to ensure product and system certifications; market knowledge provision (domestic and export market requirements), potential innovation and product differentiation and value addition.
- **Growth and sustainability:** Provide technical, business and marketing skills[9], financing for appropriate infrastructure to be in place along the mushroom value chain - including standard production houses at farm level. Address technical, infrastructural and organisational capacity gaps that lead to inconsistent mushroom supplies to the market. Additionally, allow for a private sector driven as opposed to an institutional driven approach in the mushroom value chain to ensure greater profitability and sustainability of the sector.
- **Collaboration and coordination:** Explore opportunities for collaboration and take advantage of other similar interventions in the country through government, Horticulture Development Council (HDC) and ZimTrade for export initiatives. For instance,

[9] Most consumers interviewed indicated that they do not know where to get the mushroom especially when it is off season and hence the need for proper marketing of the product and ensure continuous availability in different distribution channels.

through ZimTrade there are discussions with the Chinese to consider value addition that removes cold chain requirements for mushroom including the potential innovations around countering energy gaps through adoption of rudimentary technologies e.g., use of charcoal bags for temperature control.

- **Improve the marketing of mushroom:** The indigenous mushroom sub sector provides an opportunity for easily transforming the lives of women and youth mushroom gatherers if the marketing and processing of the mushroom is properly addressed. The local varieties, especially chihumbiro *(cantharellus cibarius)*, has potential export market in the UK and Europe. In addition, there is a need to ensure that there is support in reviving the Mushroom Growers Association to ensure regularisation and standardisation of operations in the mushroom sector.

3.2.3 Flowers Value Chain - Masvingo City Council

Sector Overview

Flower production in the country is largely concentrated in areas such as Banket/ Trelawney, Bindura, Concession/Glendale, Goromonzi, Harare, Kwekwe, Marondera and Nyanga. Flower production in Zimbabwe has gone through a metamorphosis largely due to the fast-track land reform programme. Before the land reform programme in 2000, Zimbabwe was the second largest exporter of flowers in Africa behind Kenya and the fifth largest exporter to the European Union. Roses constituted 70% of these exports, with over 350 hectares of land under roses production. Since 2002, export of flowers nosedived by 95% (USD$60M) and have not fully recovered ever since then.

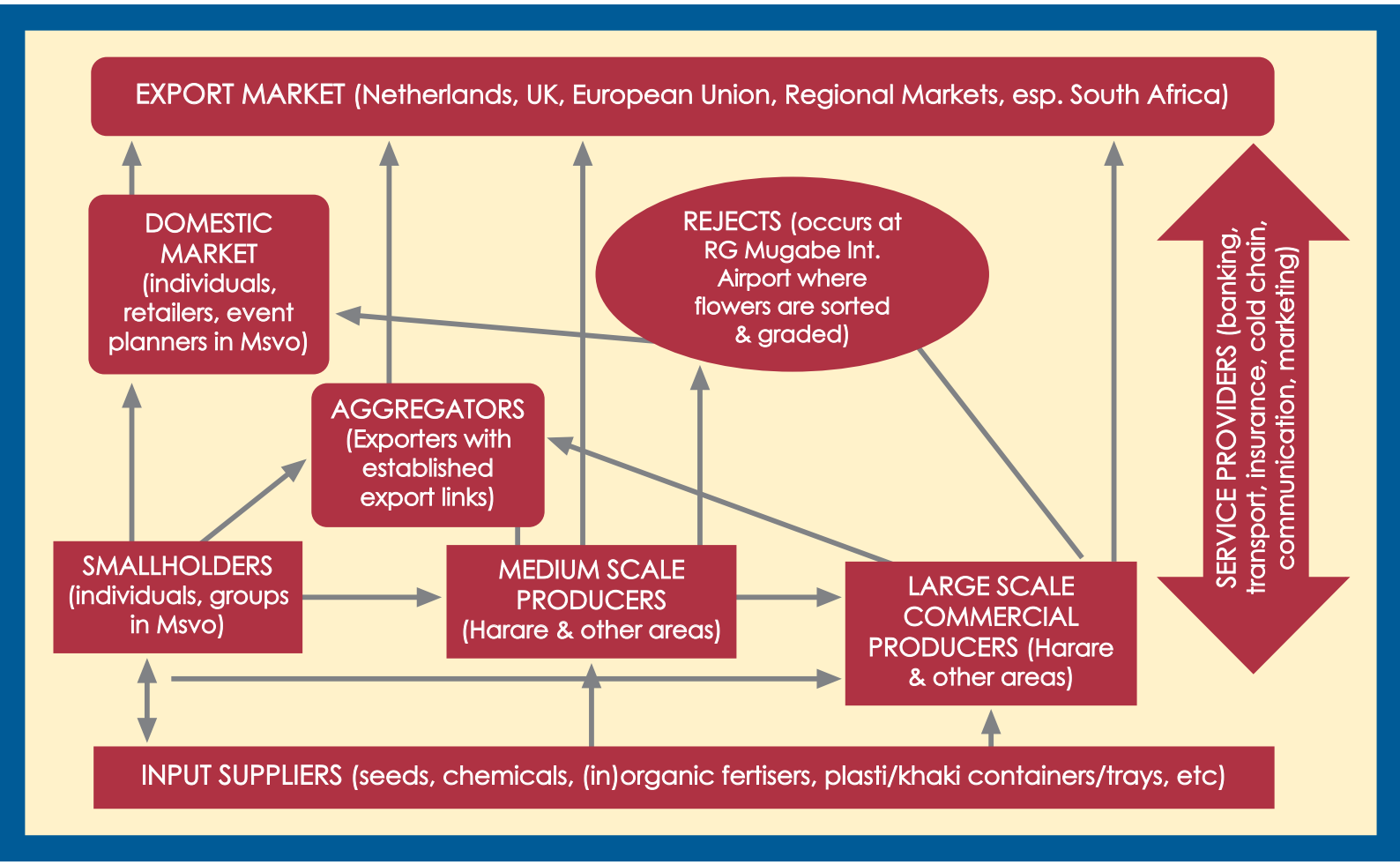
Europe dominates the cut flower market, with a value of USD$13.1 billion in 2022 and is projected to reach USD$16.1 billion by 2027. Major players present in the European cut flower market are Dummen Orange (Netherlands), Marginpar BV (Netherlands), and Flamingo (UK). Most flower farmers in Zimbabwe are organized under the Export Flower Growers Association of Zimbabwe (EFGAZ), though most of the women and youth flower farmers are unwilling to be members due to their unwillingness to pay for their membership.

Flowers Value Chain Map

The flower value chain map shows the different actors involved along the different stages of the chain. Production is mainly done by individuals where some own the land, others do not have the land and are doing the business at their backyard and yet others have the land and do not have a place where they can officially sell their flowers from.



Figure 4: Flowers Value Chain Map



It was also noted that the flower producers are at different stages of growth in their businesses with some still at the ideation stage and others who have been in the business for quite some time. Most of the flower growers in Masvingo are relatively new in the business and are doing it from their backyards creating challenges with local authority bye-laws.

In cases where the individual traders need more flowers or a different variety, they get them from medium and large-scale producers in Harare, Goromonzi and Ruwa. The major supplier has been identified as Floribunda and also the aggregators at Africa Unity Square in Harare. The aggregators at Africa Unity Square are supplied by individual farmers around and also get from the "*Rejects*" coming from flowers that were destined for the export market but are rejected at the Robert Gabriel Mugabe International Airport for failing to meet the minimum international standards.

The domestic market comprises of individuals who buy flowers for different occasions and mostly are unpredictable. There are a few producers who have established a reputation and also have premises where their customers visit or phone to place orders. Most of the retailers in Masvingo (OK, TM Pick n Pay, Spar), Nyaradzo Group, and some event planners interviewed indicated a strong desire to have fresh flowers as part of their stock but indicated that they could not get local suppliers. For the Nyaradzo Group, they indicated that they mostly rely on Harare for their flower supplies. This demonstrates that the local market demand for flowers is not being met and there is need

for the farmers to explore ways to meet the local demand from corporates operating in Masvingo.

An interesting aspect among the Masvingo flower producers was the desire to export their flowers especially the Rose variety. None of the producers currently active in Masvingo have exported any of their flowers but have had an opportunity either as students on attachment or employees to work for a company that was exporting flowers. So, this desire stems from this experience and a couple demonstrated that they understood the demands in the flower export market. This experience has pushed some to express the desire to export their flowers during this project phase. However, while the desire and the technical know-how is there, there is need to first explore the local market and build the necessary volumes, improve on standards and get product certification before moving ahead to explore the lucrative export market.



ANNECRESS FLORISTS: 20 YEARS OF SERVICE TO MASVINGO THROUGH FLOWERS



Martha Makore, a florist, in her shop explaining how she and her sisters run the business

Martha Makore focuses on flower arrangement, landscaping and dry flowers. She got into the flower business in 2001, and opened her shop in 2003. As fate would have it, Martha met Mr. Douglas Hill then chairperson of Masvingo round table club who sponsored and supported her expansion by giving her major contracts at round table events, funerals and weddings of his friends, family and associates and also allowing Martha to use his cold room facilities, a long-term arrangement which still stands to date. Martha has also been contracted by the Gift Basket, an international organization to supply to some of their clients. As a registered and licensed vendor, Martha has also supplied flowers to government institutions, state functions and hotels in Masvingo. In her journey spanning over 20 years Martha has empowered the next generation as she currently works with her daughter and some of her siblings in managing the business. She has also empowered other local youth taking them under her wing and training them in the flower business. She has worked with different kinds of flowers which include proteas, safari sunsets and pin cushions. She has managed to build her reputation and has a glowing list of events she has supplied with flowers.

Market actors

A number of women and youth are involved in the flower business mostly selling at the market in town and some at the tourist centre along the Masvingo-Beit Bridge Road. There were also a group who sell their flowers close to the cemetery. What was very clear was that the sector seems very uncoordinated and that there were no standards, stiff competition and very low margins given that the flower sellers easily yield to the bargaining powers of consumers who take advantage of their unprofessional marketing skills trying to outbid one another at the expense of their product.

Input suppliers are also available in Masvingo and these include Halsteads, N Richards, Farm & City for the fertilisers, chemicals and plastic containers that are needed. Where some of the inputs needed are not locally available or are expensive the farmers indicated Harare and South Africa as their major sources for inputs. As a key value chain actor, the local authority plays a crucial faciliatory role and yet there were concerns around municipal police harassment of the flower vendors.

Market services

The absence of a formal structure that represents the interests of the flower growers created a vacuum where unbridled competition, mistrusts and disorganisation flourish leading to a failure to properly benefit from their business. Transport service was one of the key missing links and most of the farmers who import flowers from Harare rely on public transport and yet in some instances what is required is refrigerated trucks. The absence of refrigerated trucks and cold chain facilities at the farm level or close by in Masvingo town possess serious challenges for the export initiative.

Most of the growers indicated that they rely on their own financial resources and internal savings and lending schemes to finance their operations. Formal finance services were not readily available given that most of their businesses are yet to be formally constituted.

Sector relevance

Flower growing requires less labour especially for some of the flower varieties and those flowers that farmers collect from the forest. Entry into the dry flower and artificial flower market are low barrier entry and provides a quick return. It was also observed that in Masvingo, there are people with the relevant and requisite experience of flower growing coupled with the support from Masvingo Polytechnic Horticulture Department. This provides a repository of technical knowledge which will be handy in the set up and expansion of the flower growing ventures.

Masvingo City's tourist status creates opportunities for a thriving flower business if properly set up and run. This strategic position, being close to Great Zimbabwe Monument and also being far away from Harare (where most flowers are grown), provides a competitive advantage to flower growers operating in Masvingo. There is scope for these flower enterprises to absorb many of the youths in Masvingo as most of those who currently have shown interest are mainly young people.

Sector growth

Masvingo City is growing and has an abundance of open space that can easily be utilised for the project. There are huge opportunities for growth given the support through the Government under the Horticulture Growth and Development Plan. The hotel and tourism sub-sector is growing and this is likely to increase the demand for flowers. The improvements in the road network and the plans to further develop the Masvingo Airport are likely to help grow the sector. Flowers are perishable and need a reliable transport distribution network especially if the plan to venture into the export market is to be fulfilled.

The political will and the investments by the local authority will grow the sector especially if this is coupled with reforms of the bye-laws and also internal cohesion within the various local authority departments. For example, it was raised that the actions of the Municipal Police seem to be counterproductive and there is need to ensure that the flower growers and entrepreneurs are given the necessary legislative and business support to grow their businesses.

On a much broader scale, the floriculture sector is headed for growth given initiatives at the national level to facilitate the horticulture exports. ZimTrade with its partners have two programmes targeting women and youth. NEXT SHE EXPORTER which empowers women from all provinces across the country with first group of 115 women having graduated in March 2023. Eagle's Nest Incubator for youth which runs on national television and both programmes focus on readiness for the export market, with technical support from local and international experts together with exposure to markets and trading platforms e.g., participants taken to trade shows. The project should deliberately capitalize on these and many other similar programmes from different government line ministries.

Feasibility to stimulate change

Venturing into the floriculture business presents huge opportunities to transform the lives of women and youth who have shown commitment to enter into the lucrative business. It is a business venture that clearly has the potential to involve both the women and youth at various stages along the value chain. Those with land and willing to work on it can focus on flower production, while those without land may be supported to focus on the marketing and distribution of the flowers. This gives scope for everyone to effectively take part in the value chain at different stages.



It was indicated that the floriculture business will likely bring more revenue to the city council as more people will be empowered resulting in them being able to pay for their operating spaces including their rates and levies. This potential increase in revenue for the city has been hailed as a being likely able to improve the city's service delivery and the general outlook of the city. The trickle-down effects of this support from city council will likely result in an improved business operating environment in the city leading to more investments which generally lead to local economic development. The flower growers indicated their desire to formalise their enterprises only if they stop receiving harassment from the authorities.

Environmental consideration

The cultivation of flowers especially at most of the backyard stands by those individuals who do not have enough land has presented a dilemma for the families. There is now no space for other usual activities - growing vegetables or having a small space children can play - and this has brought some social discord among families. The presence of these flowers has inadvertently increased families' susceptibility to insect and snake bites.

It was also revealed that flowers need a rigorous chemical spraying regime which does not augur well with the small spaces where most of the flowers are currently being grown. There is a huge risk of inadvertent exposure to harmful chemicals as some of the chemicals could potentially harm people who breathe the sprayed chemicals. Another critical issue raised in Masvingo was the safe disposal of the containers after the spraying exercise. According to the Environment Management Act, certain specific chemicals with certain labels, have specific recommended ways of disposal. Non-compliance with these and other regulations for safer disposal of chemicals leads to serious environmental pollution.

The current practice of using safe and treated water for watering the flowers has serious cost implications on both the entrepreneur and the city council. It was deemed to be unrealistic given the low water supplies within the city and the need to ration the water. Use of borehole water was suggested as a way of making efficient use of resources and this is only feasible when the entrepreneurs are moved to a central place and provided with land and other ancillary resources such as borehole[10] water.

However, all hope is not lost in this floriculture business. The net benefit of floriculture in Masvingo City is the beautification of the scenery as a result of the flowers being displayed for sale and also at the different front ends of houses as most people now have access to a ready market where they can buy flowers for decorating their premises. In addition, one of the environmental considerations to make include the need to ensure that the growers are aware of the provisions of the Environmental Management Act and the Parks and Wildlife Act in terms of certain flowers that are not permissible to be harvested.



Use of borehole water was suggested as a way of making efficient use of resources

SWOT analysis

The following table presents a summary of the SWOT analysis that was carried out with the flower growers in Masvingo.

[10] In discussions with the city council, they seem not have planned in the current phase of the project to sink a borehole at the site where they are planning to relocate the growers.

Table 4: Flowers Value Chain SWOT

Strengths	Weak nesses
• Untapped markets that can be capitalized upon (supermarkets & funeral companies); • Knowledgeable personnel available within the project and among key stakeholders (Masvingo Polytechnic) • There is interest and willingness on part of the City which potentially could lead to an enabling business operating environment; • Land availability (possibility of other stakeholders to offer land); • Alignment with Go Green Vision 2030 (Government initiative and support for Climate change and environmental sustainability).	• Lack of adequate training, exposure, skills and financial resources among some of the participating entrepreneurs. • Lack of inputs - mainly capital and land. • Shortage of suppliers of inputs within Masvingo. • Lack of agriculture extension services- there is no Agritex personnel in urban areas and this makes it difficult to get extension support from the public sector. • Lack of cold chain facilities and yet this is a pre-requisite for entering the export market. • Lack of collaboration and coordination among the entrepreneurs.
Opportunities	**Threats**
• Employment creation to local youths and help keep them busy; • Beautification of the scenery to help boost tourism; • Potential foreign currency generation from exports; • Entrepreneurial skills development.	• Competition from outside Masvingo. • Diversity of backgrounds amongst farmers likely to affect social cohesion and group dynamics. • No designated vending spaces posing health risks and conflict with law enforcement agencies. • Exposure to natural hazards such as drought, floods, cyclone etc. • Power shortages hamper water pumping and supply.

Sector recommendations

For the floriculture sector, the following are some of the key recommendations for effective growth of the enterprises in Masvingo City:

- **Improve legislative compliance:** The city council should facilitate the meeting between the growers and relevant government departments to ensure that there is a clear understanding of certain standards, rules and regulations governing/ dealing with some of the wild flowers and the use of chemicals. There are certain flowers that are a protected specie and prohibited from being harvested.
- **Capacity development:** It is recommended that the entrepreneurs should receive training in basic agronomic practices pertaining to flower production, marketing and business-related skills to ensure that they are capacitated to run their business ventures professionally.
- **Improve internal coordination within council:** There seems to be a disconnect and dissonance among the various city council divisions as it relates to enforcement of by-laws. While one department is closely working with the flower growers offering them designated places to sell their products from, on the other hand, another department is demanding additional layers of compliance making the growers wonder whether they should be working with council or that it's a decoy from council to expose them to further sanctions from other council departments.

- **Improve on marketing of the product:** The private sector in Masvingo has expressed a great desire to source flowers locally if the growers could assure them of good quality flowers and consistent supply. It is recommended that measures be deliberately taken to start to explore strategic alliances with the private sector with a view to better understand their needs and help close the domestic gap.
- **Formal representative board:** It was apparent that the flower growers are individuals each with their views and meeting for the first time as a group of flower growers. There was still high degree of mistrust, competition and yet there is an opportunity to mutually benefit if the growers could form an association to represent their interests in Masvingo and beyond. This association could initially start focusing on:
  - Working with council to ensure review of existing by-laws that negatively impacts on their business;
  - Work with the private sector to better understand their needs and properly equip their members to respond to the identified market needs;
  - Explore opportunities beyond Masvingo through the EFGAZ, ZimTrade and the different arms of government; and
  - At the right juncture, explore venturing into the export market (long term aspiration).

3.2.4 Chilli Value Chain - Umguza RDC

Vegetable Sector Export Overview

The export trade value of the vegetable sector alongside fruit production in the country amounts to an average of 18 million USD per year. Southern Africa countries such as South Africa, Zambia and Mozambique top the export markets, while the Netherlands, United Kingdom, France, Ireland, Germany, Belgium, Indonesia, United Arab Emirates and Sweden are key international markets for vegetables. According to study commissioned by the Netherlands Enterprise Agency on the fruit and vegetable sectors in Zimbabwe, the country produces a range of vegetable crops for the export market, with Mangetout peas constituting 40% of the exports, French beans at 20%, baby corn at about 15% and others such as sweet corn, baby carrots, chilli and cherry tomatoes constituting the balance. The country's climatic conditions place it at a comparative advantage of producing high-value crops when most countries are out of season.

Given the diversity of potential export vegetables that can be produced, the table below potential export crops that can be grown during specific seasons by prospecting smallholder producers such as Umguza RDC.



Table 5: Potential high value vegetable crops suitable for export markets

High value crops	Appropriate production period
Mangetout peas	June to September
French beans	January to December
Baby corn	January to December
Sweet corn	October to April
Baby carrot	April to September
Chilli	October to May
Cherry tomatoes	January to December
Gem squash	October to May
Garlic	May to July and October to December

Most vegetables have a short growing season, allowing for rotation and production of diverse crops through-out the year. For crops that can be produced anytime of the year under irrigation, this allows for strategic production time for when the domestic global market offers best prices.

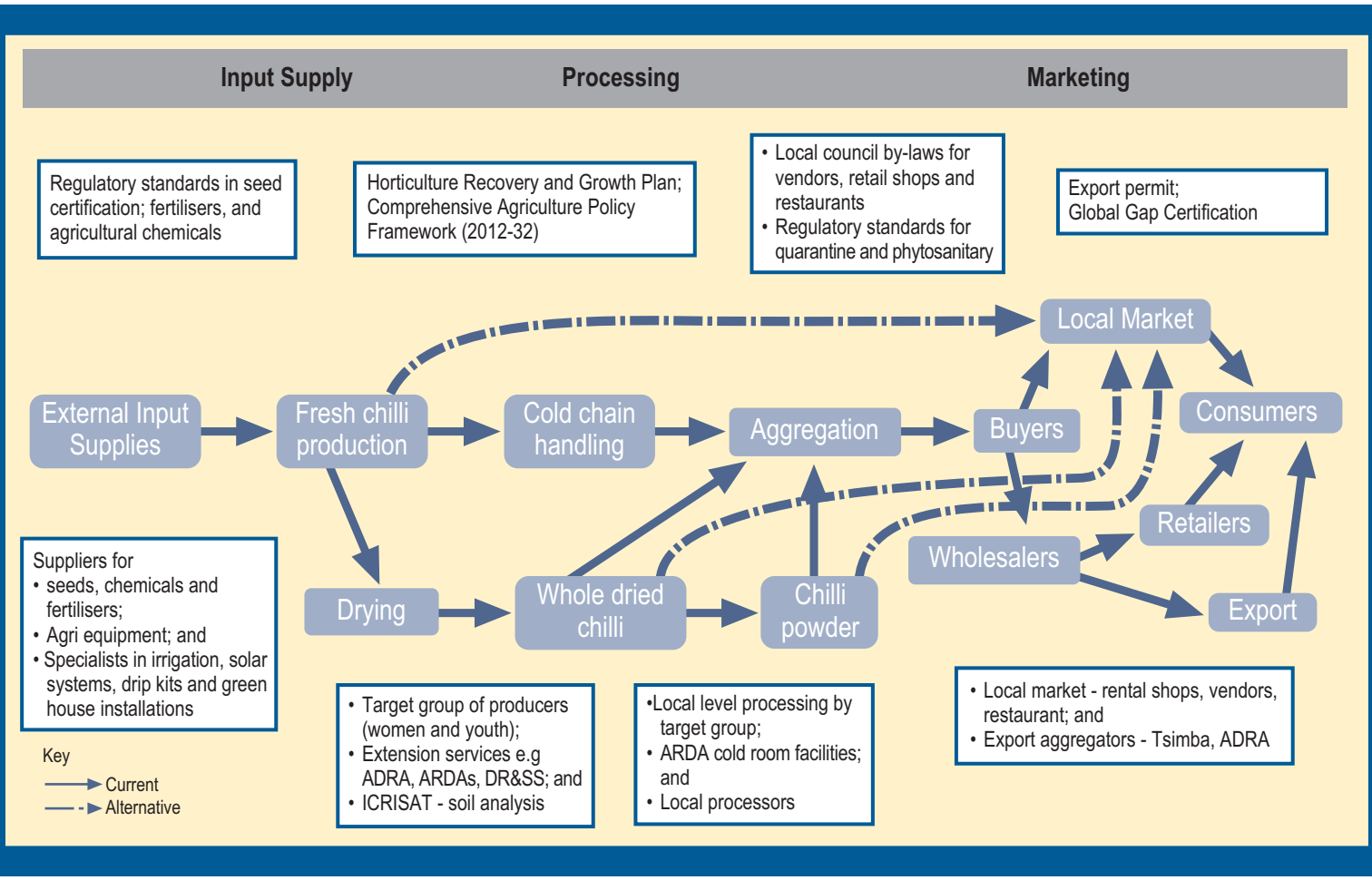
Penetration of export market by smallholder farmers would require careful navigation to meet market requirements around food safety which include traceability, hygiene criteria, chemical contaminants, and pesticides. Having a food safety assurance system through certification such as the Global Gap Certification (GGC), is a major crucial step for smallholder farmers to access horticulture export markets. This should be coupled with reliable access to cold facilities in order to reduce post-harvest handling losses. This session provides a deeper dive analysis for one of the potential export crops, chilli value chain, to unpack this potential for smallholder farmers in Umguza RDC. The general scope of actors, activities and enabling environment are relevant for all the various vegetable crops that can be produced.

Chilli Value Chain

The chilli horticulture value chain analysis for Umguza RDC was done in the context of an enterprise that is transitioning from ideation to start-up stage. The district has in the past implemented a number of community gardens producing vegetables largely for household consumption. The proposed 5ha irrigation scheme for horticulture production is designed to support the enhancement of employment opportunities and livelihoods for 50 community members, mostly youth and women in Ward 6, Umguza district. The irrigation site is located 40 km from the city of Bulawayo. The road network is mostly tarred (about 34km), with only 6km being a gravel road to the site. Available support services include: ARDA horticulture center; good network connectivity; drilled borehole; and electricity connection to the national grid is close-by (business center, secondary school, clinic and some houses are electrified). Ward based government extension officers are available to support the project and were part of the discussions with the smallholder farmers.

The chilli value chain presented below provides insights into findings on the enabling environment, key activities and actors, and market support services that can potentially be involved in the proposed initiative.

Figure 5: Chilli Value Chain Map



Chilli value chain actors and activities

Input supply: Inputs (tested seed, fertilizers, chemicals) are available from suppliers such as Syngenta Suppliers; AGT Zimbabwe, SeedCo, Intaba Trading, National Tested Seeds, Charter Seeds) - Farm and City Sales (Bulawayo), based in Bulawayo. Most of the seed suppliers provide extension support services as part of their customer relationship building. The ADRA Center of Excellence in Umguza doubles as a demonstration site for seed houses such as SeedCo, and could be used as a site for seedling production at an affordable price to local farmers.

Given that it's a new irrigation scheme earmarked for export produce, capital investments identified by project proponents include a solar pump for the drilled borehole, green house facility for drying, and drip irrigation kits. Locally available inputs required for chilli production such as livestock manure will be supplied by community members. Other consumables such as fencing materials, storage shades, latrines, and local unskilled labour will be supplied during establishment phase.

Processing/Production: A total of 50 community members consisting of 25 women (+35 years), 15 youth and 10 men, are anticipated to provide labour during crop production, harvesting and post-harvesting processes. Pest and disease management will be an essential component to minimise losses during production. Agronomic extension services from AGRITEX and input suppliers will be essential. The community already has an AGRITEX officer for dry-land

farming, and would require a specialised extension officer for chilli production to ensure adoption of appropriate practices. Additional support services will be required for soil testing and analysis to inform soil health management. These services are provided by DR&SS and ICRISAT, which is present in the same province.

Chilli can potentially be sold as fresh, whole dried and powder. The target community has experience with value-addition in the form of drying, especially leaf vegetables for own consumption. However, capacity building will be required for handling and processing commercial chilli production. Strategic partnerships with ARDA will be essential to access the utilise the existing cold room facility in place for horticulture produce. ARDA has capacity to aggregate all the targeted produce of up to 10 tonnes per production cycle in their cold room facility.

Marketing: Anticipated local markets include buyers and aggregators such as Willsgrove market, the open vegetable markets, restaurants and hotels and super market chains. No specific export market has been identified for targeting, however discussions have been initiated with Zim-Trade and aggregators such as Tsimba Produce which is horticultural produce export division that mainly focuses on international and local supplies. While the proposed focus is on export markets, consideration should be made to focus on the local market as an entry point into commercial horticulture production for the target group and Umguza RDC whose experience is currently limited both technically and in terms of management.

Chilli enterprises in Matabeleland north and south are currently a mix of commercial and small-scale producers and informal small and micro-enterprise level producers. Most of small-scale and informal production is partly driven by elephant friendly measures of human-wildlife-conflict management, for communities living adjacent to national parks.

Policy Environment

Input Supply: Regulatory standards in seed certification, fertiliser and agricultural chemicals, are in place governed by departments such as the DR&SS within the ministry of agriculture. The selection of horticulture value chains by Umguza RDC is informed by a council strategy taking into consideration the following aspects the complimentary resources and strategic assets available, as well as the need to facilitate for development that empowers women and youth.

Processing/Production: The national Comprehensive Agriculture Policy Framework provides the overarching guidance for the agriculture sector, and recognise horticulture as one of the major export sector. Specific for the sector, a Horticulture Recovery and Growth Plan outlines the anticipated targets and export earnings expected for key horticulture commodities. The Umguza RDC is targeting to produce at most 10 tonnes of chilli from 5 hectares.

Marketing: The local marketing of chilli in Umguza will be subjected to council by-laws in terms of operating market stalls. The proposed export market will however be subjected to regulatory standards for quarantine and phytosanitary. The exporting of chilli will require an export permit by the aggregator as well as a GGC. Tsimba can help to facilitate for the securing of the GGC, which is a requirement for export to South Africa. It also facilitates for packaging, grading and liaisons with the buyers, as a fee to the producers.

Chilli value chain relevance for target group

The proposed chilli value chain is not a completely new to the target groups. However, given the intention to supply commercial local and export market, consideration should be made to train and provide technical knowledge in to the target group. With no mechanical picking planned for this enterprise, there is need to consider scheduling the production to reduce the burden on women and youth of manual labour involved in picking chilli and processing.

Sector Growth

There is significant potential for local spice market for both fresh, whole dried and powder chilli. The city of Bulawayo has a wide range of market actors which include restaurants, retail shops, fruit and vegetable informal and formal markets, and super-markets. There is need to Umguza to start engagements with the local market actors to ensure they take into consideration market requirements and specifications into the production and processing activities. This will be a short-term focus to allow for fully establishment of the scheme. In the short to medium term, the regional export market penetration should be possible working with an aggregator for economies of scale. This in the long-term will create a solid profile for the scheme to be able to trade in the international market with ease.

Feasibility to stimulate change

The commercial market remains rigid in terms of standards and contractual requirements. However, buyers such as ARDA and Tsimba are potentially willing to work with Umguza producers to generate good quality, and achieve required production volumes. The enterprise model is not clear whether the target group are entrepreneurs or employees of the scheme. The nature of the business arrangement needs to be documented and signed off by both parties to foster accountability and transparency. This will facilitate for sustainability of the value chain.

Environment/Climate Considerations

The environmental sustainability of the chilli value chain will be anchored in the soil health and water testing (quality and quantity) in view of the agroecological context. Appropriate mitigation measures should be put in place to ensure environmental sustainability.

SWOT Analysis

The summary below presents insights which can guide the start-up phase of the chilli value chain enterprise development for Umguza RDC.

Table 6: Chillies Value Chain SWOT

Strengths	Opportunities
• Strategic resource endowments such as ARDRA expertise, cold chain facility and proximity to the city of Bulawayo; • Conducive enabling operating environment for horticulture production and processing; and • Comparative advantage in chilli production in terms of agroecological and climate suitability.	• Easy entry points for women and youth to participate in the value chains; • High potential for diverse value chain products, and diverse market; • Target groups can potentially operate at various levels within the value chain through value addition; and • High export market regionally and internationally.
Weaknesses	**Threats**
• Target group has limited control and ownership of the enterprise business facilities and strategic resource assets; • Limited access to credit and financing mechanisms for the business enterprise; • No target markets involved in co-creating the enterprise model, to aid in securing access to high value markets; • Given the initiative is still in its early stages of development, accessing export market within the current funding period is highly unlikely without a business plan in place; and • No cost-benefit or return on investment analysis in place to establish financial and economic viability of the proposed high-tech capital investment (drip and green house technologies).	• High-cost maintenance technology with no clear funding strategy and business model; • Lack of entrepreneurial and business skills within Umguza RDC and target group to ensure ownership; • Limited transparency on benefits likely to accrue to each target group member in view of scale of operation for a commercial business entity earmarked for export market; • No guaranteed price for chilli, making profit uncertain; and • Manual chilli harvesting is labour intensive, likely to limit cropping area and profit per farmer.

Sector Recommendations

The chilli value chain analysis for Umguza RDC largely generated pointers to facilitate the translation of the proposed enterprise into reality. To facilitate for successful set-up of the proposed value chain system, the following next steps can be taken into consideration:

- Develop a constitution to manage group dynamics and govern the operations of the enterprise;
- Conduct an export market scoping study for the chilli enterprise development;
- Engage with target markets to in co-creating the enterprise operations and product lines;
- Building the capacity of the target group to produce, process and maintain the quality of chilli products; and
- Develop cost-benefit analysis and cash-flow projections to aid determining the return on investment and value for money, in view of the proposed use of high-tech equipment such as drip kits and green-house for a small-scale irrigation scheme.

3.2.5 Waste Management and Recycling Value Chain - Kadoma City Council

Sector Overview

Solid waste management has emerged as one of the greatest challenges facing environmental protection agencies in developing countries. Solid Waste is generally defined as waste generated from homes, street sweeping, industries, institutions and commercial areas which needs to be collected by or on behalf of local authority (Hester and Harrison, 2002). Zimbabwe generates an estimated 1.7 Million tons of solid waste per annum (Environmental Management Authority - EMA 2021) 18% of this is plastic waste. Of this only 10% of the waste is collected and dumped in landfills. The remaining 90% is not collected and neither is it reusable, recyclable or biodegradable.

Generally, solid waste generated in Zimbabwe has high proportions of imported non-biodegradable materials such as glass, plastics, metals, paper, and cardboard. Waste in developing countries is rarely recycled but compacted and deposited in dump sites. In Zimbabwe, solid waste is generated from homes, street sweeping, industries, institutions and commercial areas. Lack of collection of waste by most councils has created an informal sector of waste pickers who recycle waste for a living. It is estimated that 11% of plastic waste generated in Zimbabwe is recycled (mainly the High-Density Polyethylene (HDPE), Polyethylene Terephthalate (PET) and low-density polyethylene (LDPE). Waste recycling creates employment opportunities thereby alleviating poverty. These jobs are created in different nodes in the VC such as those of waste collectors, processors and recycling companies.

There are two types of recycling in Zimbabwe: formal and informal. The former includes registered private companies who are responsible for waste collection, sorting and recycling. Some of the companies buy



waste from collectors/pickers. They generate their income through value addition and selling their products at higher selling prices. Packaging industry is the main consumer for plastic waste and is said to be growing at an estimated rate of 8-12 % annually. The informal recyclers include individuals, mainly from poor sections of the community like informal settlements. They often collect and trade recyclable waste materials at considerable volumes, contributing positively to economic and technical value recovery in the system. However, these informal pickers face various challenges including low prices, high transport and are often manipulated by private companies. The informal waste recycling sector plays an important role in achieving high recycling rates. In Africa, it is estimated that the informal sector contributes approximately 30% of recycling. Despite the contribution of the informal waste recycling, their role and contributions are not fully recognised by local and national authorities.

Kadoma city is generating 30 tonnes of waste per day whilst recyclable waste constitutes 18 % of this total or 5.4 tonnes per day. Awareness on better ways of waste disposal and recycling. Are being promoted by EMA and like-minded organisations. Kadoma council provides metal bins in the Central Business District (CBD) to curb littering. Recyclable waste materials in Kadoma are as follows:

- Organic waste-food waste, garden waste such as leaves sticks and wood. This kind of waste is normally turned into garden manure.
- Cardboard and Paper consisting of newsprint, white office paper, mill scrap, corrugated paperboard, card boxes and magazines.
- Plastics and Rubber consisting of polythene packaging, PET bottles and LDPE materials.
- Metals such as ferrous scrap like household appliances, cans, iron and steel products. Non-ferrous scrap including aluminum and copper.
- Glass consists of clear glass, green glass, brown glass and other coloured glass.

According to Kadoma Municipality's March 2023 report, the composition of solid waste is such that a high proportion is organic waste, constituting 82% of the daily solid waste generated. Only 18% is recyclable waste. However, with a total population of 117 380, the waste recycling project remains viable and profitable for Kadoma, considering the small size of the recycling community.

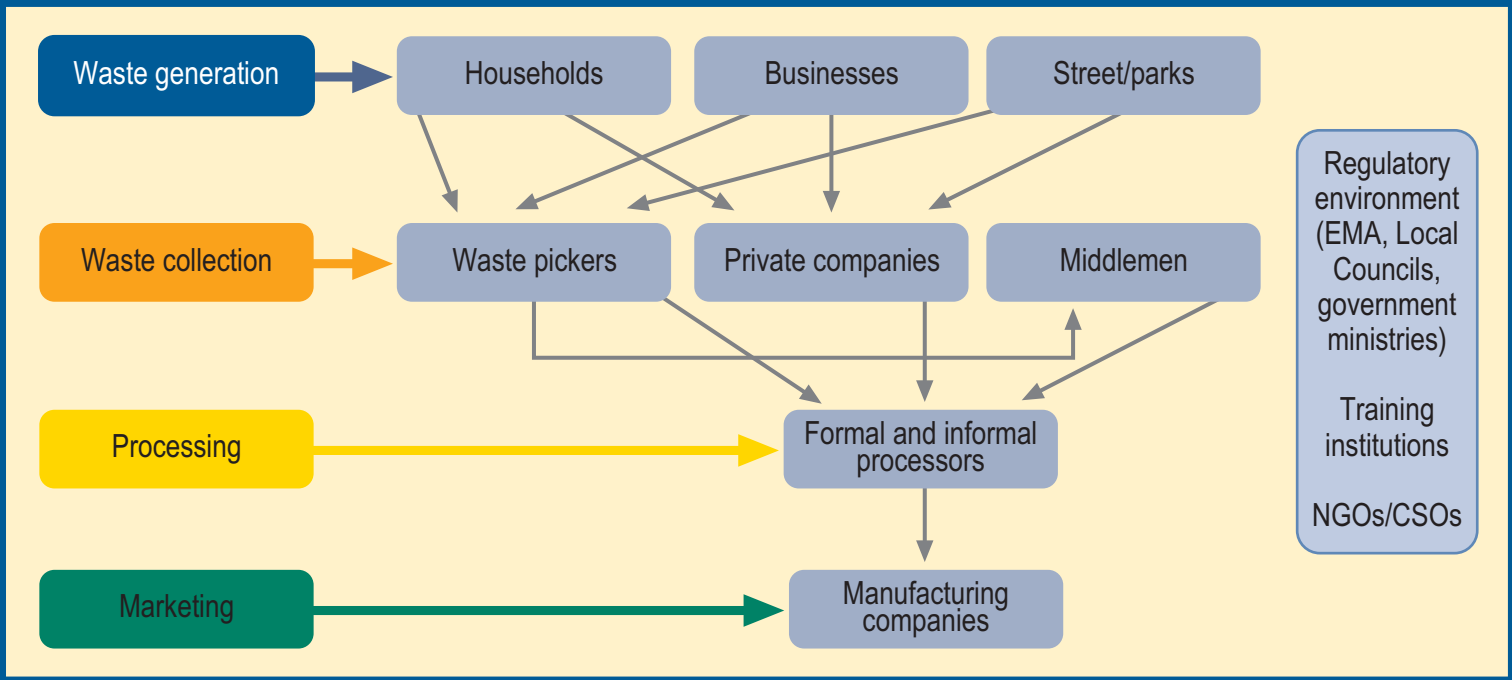
Women and youth in waste recycling

Waste pickers in Zimbabwe emerged in urban and peri-urban communities as an opportunity for economic survival. Initially, waste pickers were mostly poor residents. These informal pickers are regarded to be intellectually and socially inferior and they compete with the formal recycling sector. However, with time, waste recycling has become common. In Kadoma both men and women participate in waste recycling but there are more women than men in waste recycling. The pickers are often perceived by the public as illiterate, lacking skills, living and working under poor conditions in unhygienic environments. In general, autonomous waste pickers are discriminated against due to the stigma associated with their activities which further aggravates their suffering.

In most cities, especially in developing countries, women form the majority in informal economic activities, they also constitute the majority of informal waste pickers. In Mashonaland central women are organized into clubs for example Rujeko and Kubatana clubs. These two clubs have a total membership of 20 each and use their homes as storage facilities and for sorting waste.

Waste picking may not even be a sufficient income-generating activity for them and their dependents. In several cities, there have been attempts to formalise the activities of waste pickers through co-operatives and associations. There are no incentives for waste picking and selling as prices are unattractive at less than 4 cents a kilogramme for collecting plastic bottles hence few men participate. In Zimbabwe, other women groups are involved in value addition activities including producing handbags, armbands, shoes and other items from plastic waste. Some have founded cooperatives to sell these products nation-wide and even abroad.

Figure 6: Waste Recycling Value Chain Map



The value chain processes include identifying waste in the area, waste collection, processing (that is sorting, cleaning, shredding, bailing) and manufacturing of the waste.

Production

The production function consists of different stakeholders who perform the primary activities of collecting waste from waste generators. The process involves the picking of waste materials like plastics, glass, metal, card boxes. The picked waste is then stored for initial processing activities. These are outlined below:

1. *Waste generators:* This group comprises of households, commercial enterprises, and industries producing recyclable waste
2. *Waste collectors/pickers:* These form an important link in the value-chain of recycling in many cities and are individuals, groups or cooperatives. These include self-employed pickers from Kadoma community who move around the town picking recyclable waste from dumping sites to supplement their income. The pickers include men, women and youth. These do not have the financial resources to either buy or transport large volumes to the market or convert the

recyclables available. Waste pickers collect recyclable waste materials from the points of generation and/or disposal e.g. households, streets, parks, dumpsites and landfills. They sell to middle men or directly to private companies for processing including manufacturing of by products in Harare. In Kadoma waste collectors pick waste, sort, clean and transport to Harare for further processes like shredding and bailing.

3. *Intermediaries:* These are individuals or groups who buy recyclable materials from waste pickers. Primarily they store and trade recyclable waste materials in huge quantities. They are normally more organised and have premises to sort, clean and transport the waste. In Kadoma there are few intermediaries. The majority are based in big urban centres like Harare and Bulawayo.
4. *Private companies:* These are also directly involved in waste collection. These organise communities to sort waste in their localities and collect from pick-up points or buy waste in different localities and are found in major towns and cities like Harare, Gweru and Bulawayo.

Processing function

The processing function starts after waste collection and is usually done in household backyards or industrial areas for companies. There are different activities involved at this stage.

1. ***Cleaning and sorting:*** Separating the waste enables one to supply the various players who need the different materials and prevents contamination. Contaminated waste needs thorough cleaning before it is processed and is a burden to the recycler. The process involves cleaning and packing different materials separately (PET or LPDE plastics, metal, glass or paper). At this stage the waste is cleaned (including removing stickers, lids) and sorted. The lids are bailed separately because they have different buyers. Sorting is also done at source. Local supermarkets in Kadoma such as Pick n Pay and OK Zimbabwe voluntarily separates plastic waste. This provides waste pickers a ready source of recyclable material. As for glass bottles, the broken bottles are packaged separately from the rest of the glasses since they attract a different price for each category.
2. ***Shredding and bailing:*** This is usually conducted by private companies or intermediaries to reduce the size of waste materials and bail for easy storage and transportation. There are no companies in Kadoma that are involved in shredding waste materials. As such waste pickers transport their waste after sorting and cleaning to Harare. The cost of shredding and bailing is done in different locations in Harare and the average cost is USD 5 per 100kgs. This is done by companies like Pinyaz Hd &pp plastic recycle Zimbabwe. Waste pickers in Kadoma at times use trucks to crush the materials. They just offload the materials on the ground and allow trucks to drive over the materials to reduce the volume before transporting the waste to Harare for marketing.
3. **Manufacturing:** These are private manufacturing companies who buy unprocessed or semi-processed waste and are responsible for production of new products like plastic buckets, pipes, recycle bins. There individuals who are organized into groups in Harare and other areas who are also involved in value adding activities at source. They produce handbags, shoes, hats, shoes, pavers etc. Table 7 below shows prices of waste provided by a local company run by a young woman in Harare[11].

[11] Information gathered from Hannah Hwapungwa, the founder of Litter Monster Pvt Ltd in Harare

Table 7: Waste Pricing List

Type of Waste	Total Tonnage	Buying price	Selling price	Profit
HDPE -plastics	1	$550	$750	$200
LD - plastics	1	$350	$600	$250
PP - plastics - chipped	1	$250	$550	$300
PP - plastics - unchipped	1	$100	$250	$150
Total	**4**	**$1250**	**$2150**	**$900**

Marketing function

The marketing function is carried out by the different stakeholders in the VC. The market for waste products is huge in Harare. There are many players involved in recycling waste including Recycle Today, Rangers Plastics, Monte Rosa Plastic Recycling, Pawuri Plastics etc. There are different avenues for marketing the waste as outlined below.

Waste pickers: There are two avenues that are exploited by individuals or groups in Kadoma. First there are few individuals, especially youth, who normally collect waste for 'quick money'. These collect plastic materials from chain supermarkets and other locations in town and sell to intermediaries. The study failed to access the intermediaries to ascertain the prices for the different waste products. Other waste pickers who are involved, transport their waste after cleaning and sorting it to Harare. For plastic waste the average price ranges from USD 0.45-0.60 per kg. The prices fluctuate and depend on other conditions such as possession of tax clearance certificates. If waste pickers do not have a tax clearance, the companies withhold 15%. In other areas like Harare, organized groups produce recycled products like hats which they sell for USD2-5 depending on size. They also collaborate with brick moulders and produce pavers which they sell for USD 50c per brick.

Intermediaries: These are individuals and micro enterprises who buy plastic waste from waste pickers at different locations within Kadoma. They resell the materials to plastic packaging manufacturing companies such as Tregers Plastics, Recyclable Africa and Petrocozim in Harare. These intermediaries are either individuals or groups. They sell the recyclables to end-market users or to other individuals who export the materials.

End Market Users: These are plastic manufacturing companies who buy unprocessed or semi processed plastic waste from the intermediaries and the waste pickers. From the conducted interviews, companies like Tregers Pvt Ltd, Recyclables Africa and Petrocozim Ltd buy material from value pickers. The average end market price that the local packaging manufacturing companies pay for the plastic material is about 0.40 cents per kilogram. However, the price is reduced when the material has dirty liquids, silt, or stones. In some instances, the extent of contamination may lead to material being rejected on the market. The community pickers in Kadoma reported that these end market users determine the market prices they are willing to pay for the materials that meet their specifications. As a result, the intermediaries and waste pickers must comply with the dictated prices. Most of the plastic can be melted, cooled, crushed into pellets which will then make other plastic products such as bin liners, irrigation pipes, buckets and bed linen, among others. Table 8 below shows some of the companies that buy plastic waste.

Table 8: List of companies buying plastic waste

Type of Waste	Markets
HDPE -plastics	Tregers Plastics, Waverly, Wessex , Websec (Chinese)
LD - plastics	Tregers, Chinese, Local market
PP - plastics	South African Companies, FMP Metals SA Metals, Reclaim Non-Ferrous Metals

Enabling Environment

The two pieces of legislation which provides a framework for solid waste management in Zimbabwe: Urban Councils Act and EMA Act. Overall, the legal instrument guiding waste disposal in Zimbabwe, is the Environmental Management Act (EMA), Chapter 20:27, Section 72 (1). The clause identifies the following categories of waste: hazardous waste, corrosive waste, flammable waste, toxic waste and radioactive waste. In addition, the act guides the management of solid waste. Chapter 20:27. Section 70 (1) of the EMA Act stipulates that 'No person shall discharge or dispose any waste in a manner that causes environmental pollution or ill health to any person'. EMA has the responsibility of promoting recycling initiatives. This is being done through carrying out environmental education and training on sustainable waste management programmes. Currently EMA is implementing the Zimbabwe National Recycling Programme (ZNRP) in collaboration with Vertmedia. The programme was mandated to systematically introduce recycling in Zimbabwe through a variety of initiatives which prevent waste-related diseases such as cholera. The programme is being implemented in line with National Environmental Policy (NEP).

Local authorities are also given control over management of waste in their areas of jurisdiction. The Urban Councils Act, Chapter 29:15, designates the responsibility to provide solid waste collection, transportation and disposal services. Kadoma Town Council as a local Authority provides space for the storage of waste collected. It also supports the beneficiaries with information, education and motivation where necessary. Resources permitting, the local authority may provide bailing machines protective clothing and masks to the beneficiaries. Also, being the custodian of the project underway, the Local Authority has a mandate to ensure that the intended results are produced by managing and coordinating the beneficiaries.

Information gathered during the study show that waste pickers face challenges from policing authorities (Zimbabwe Republic Police and EMA). For example, when they are transporting waste, they are expected to have a permit from EMA. Failure to comply may lead to confiscation of their products. However, information gathered from EMA shows that for individuals who are not registered as a private entity can be registered for free. Permits only apply to registered entities and the permit costs USD 280 plus 5% administration fee. At central government level, waste pickers also work with different government ministries for instance the Ministry Women Affairs, Community Small and Medium Enterprises.

Business opportunities

Waste recycling is an easy entry point for women and youth as it does not require capital or qualifications. As highlighted in the previous section, registration with EMA is free. Currently the individuals have to be coordinated and enjoy economies of scale when transporting and marketing their products.

The raw materials for the project are readily available. The three cities generate huge volumes of waste which is not being recycled. Waste recycling will reduce the budget for waste management for the three councils. The availability of shredding machines will reduce the volumes of waste collected and fetch better prices on the market. There is scope for value addition once the waste pickers are organized into cooperatives or registered entities and trained by the councils. Lastly, there is a ready market for waste materials as well as the proximity of the cities to the market for example Murewa is close to Harare and Beitbridge to South Africa. There are opportunities for employment creation for women and youth.



Hannah Hwapungwa is a 24-year-old lady who started her recycling business - Litter Monster Pvt Ltd in 2018. She uses her father's premises in Tynwald, Harare on a small scale where she buys and sell recycling materials to other companies. The items she mostly buys are plastic containers, buckets, cans, pet as this has a more market value especially with the Chinese firms that are into recycling of these. Initially they would also sell the products to South Africa because they fetched more especially the cans but because of the high cost of transport, she decided to focus her attention on the local market. She uses her yard to store, separate and package the materials to supply to different companies. Initially she used to pick up the waste on her own but she has established her business and has waste pickers whom she pays for the service. Her long-term goal is to have a recycling plant by 2025.

Capacity building: Waste recyclers lack information about the markets, opportunities for export markets, policies that regulate their work. There are opportunities for groups to be trained by the Ministry of Women Affairs, Community, Small and Medium Enterprises. Kadoma city council and EMA have the mandate to provide information to groups interested in waste recycling.

Key partnership opportunities: The government and local councils are working on modalities that can be adopted to manage waste. As such interview participants highlighted that EMA is working with Ministry of Youth, Ministry of women affairs and the Forestry Commission to train waste pickers. There is also scope for individuals or groups that are producing other products from waste material to exhibit at the Zimbabwe International Trade Fair (ZITF). The Local authority, through the Junior Council Meetings, holds periodic meetings in Harare, in conjunction with the Ministry of Youth to train youths on waste management and recycling. Through the Presidential clean-up campaign day schedule on the first Friday of the month, the ministry of Youth engages the youths to participate hence waste management awareness is introduced in such platforms. There are also other partnership opportunities that can be pursued by Kadoma town council. For example, partnering with private companies. In Harare private companies are involved in partnerships with communities through

the establishment of waste collection centres.

Financial and credit facilities: Waste recycling in Zimbabwe for waste collectors is considered as very informal activity. Government supports different initiatives by women through the Ministry of Women Affairs, Community, Small and Medium Enterprises. For example, Empower Bank has a facility which can be taped by waste pickers. The product has affordable interest rates. Requirements include a business plan, an account with bank, proof of residence, national identity card and passport sized photos.

Conditions and barriers to market access

- There are no processing companies in Kadoma for plastic waste hence the waste pickers have to transport the waste to Harare for shredding and bailing.
- The above poses logistical challenges because plastic waste is bulky hence requires huge trucks to be ferried to the markets in Harare. FGD participants highlighted that in Harare there are different service providers for shredding and bailing who are located in different places. This then requires the waste pickers to face additional transport costs to take the bailed waste to the waste recycling companies.
- Price fluctuations.
- The majority of the waste pickers are not registered with ZIMRA and do not have tax clearance. This also affects the pricing models and companies take advantage by deducting 30 % presumptive tax.



The government and local councils are working on modalities that can be adopted to manage waste

SWOT Analysis

Table 9: Waste Management and Recycling Value Chain SWOT

Strengths	Weaknesses
• The picking of waste by pickers is a platform for making Kadoma town a clean town as the waste bottles and plastics are reduced in the pavements thereby promoting environmental and human health protection, boosting the economic productivity of the nation via resource recovery from recyclable waste. • Reduces work load for the local authority, since the amount of waste would have been reduced by pickers. • It reduces the waste burden at the local authorities' disposal site (Kadoma Landfill) since pickers also visit the disposal site to pick solid waste from there. • Waste pickers are passionate and flexible and cover areas outside Kadoma town council. Having this calibre of a passionate team, the project is likely to be a success. • For citizens without formal educational qualifications, waste picking represents a possible avenue to support themselves.	• The project has been planned and purported to be done previously and it failed. As a result, there is an inherent fear in individuals that the project might not succeed again. • The pickers do not have enough resources like protective clothing, bailing machines and arranged transport. • The coming together of people with different characters and behaviour might pose a challenge administratively. • The local authority might not be able to meet all the expectations of beneficiaries to the project which might reduce their morale. • Financial constraints, for instance, beneficiaries might collect waste but fail to transport it to the market. • The local market buys solid waste at very low prices.
Opportunities	**Threats**
• The coming together of people is an opportunity for bringing better results in terms of volumes, quality waste for better market prices and division of duties. • Bailing and shredding reduces transport costs which in turn gives back higher margins. • It is easy to penetrate the external market when there is team work and clear coordination with the stakeholders like Environmental Management Agency and Forest Commission among others. • The production of waste in Kadoma is rampant, having a population of 117380 people and a waste generation of 30 tonnes per day, hence production will likely to be continuous. • The project is in line with the Head of State's vision, which has declared the first Friday of the month as a National Clean Up-Campaign Day, when people turn out to the streets and pavement picking up litter, therefore the project has the support of the government.	• Non availability of transport to the market is costly. There are no buyers for plastic waste buyers in Kadoma, the beneficiaries will have to travel to Harare to sell the solid waste. • Waste metal is channeled towards a single buyer namely Steel Makers in Kadoma, a branch of ZISCO STEEL in Redcliff. This monopolistic position affects profitability. • Power cuts affect processing activities like shredding. Hence beneficiaries will have to wait for days in Harare. This also affects the profitability of the enterprises. • Management for the group can be a challenge as a result of trust issues. Having mixed up different individual characters to achieve a common goal, management perceptions may be a challenge as issues of trust may rise up. • Returns are very low for example on plastic bottles. For enterprises in Kadoma who have to bear the costs of transporting the waste to Harare for processing.

Recommendations

Capacity building: Pickers need to be trained on recycling, financial literacy. The majority are not getting the value at the market place.

Value addition: Waste pickers have to engage in value addition activities, for example what is being done by other groups in Harare who are making hats, handbags etc.

Coordination: Waste pickers must be coordinated and register as a cooperative. This will help them to benefit from economies of scale when transporting and selling their products.

3.2.6 Renewable Energy Value Chain - Zibagwe RDC

Sector Overview

The increase in population witnessed around the world over the last two decades, has widened the energy demand-supply gap and the usage rate of non-renewable resources has increased. There is need for alternative energy sources from locally available resources. As such many countries are adopting policies that promote the production and utilisation of alternative, sustainable and renewable energy sources. In recent years, initiatives for promotion and adoption of this technology in Africa is gaining much traction. Biogas is among these sources of green energy production through the anaerobic digestion of agricultural feedstock like manure and food industry waste products. This technology can be beneficial to African nations as it provides clean source of energy.

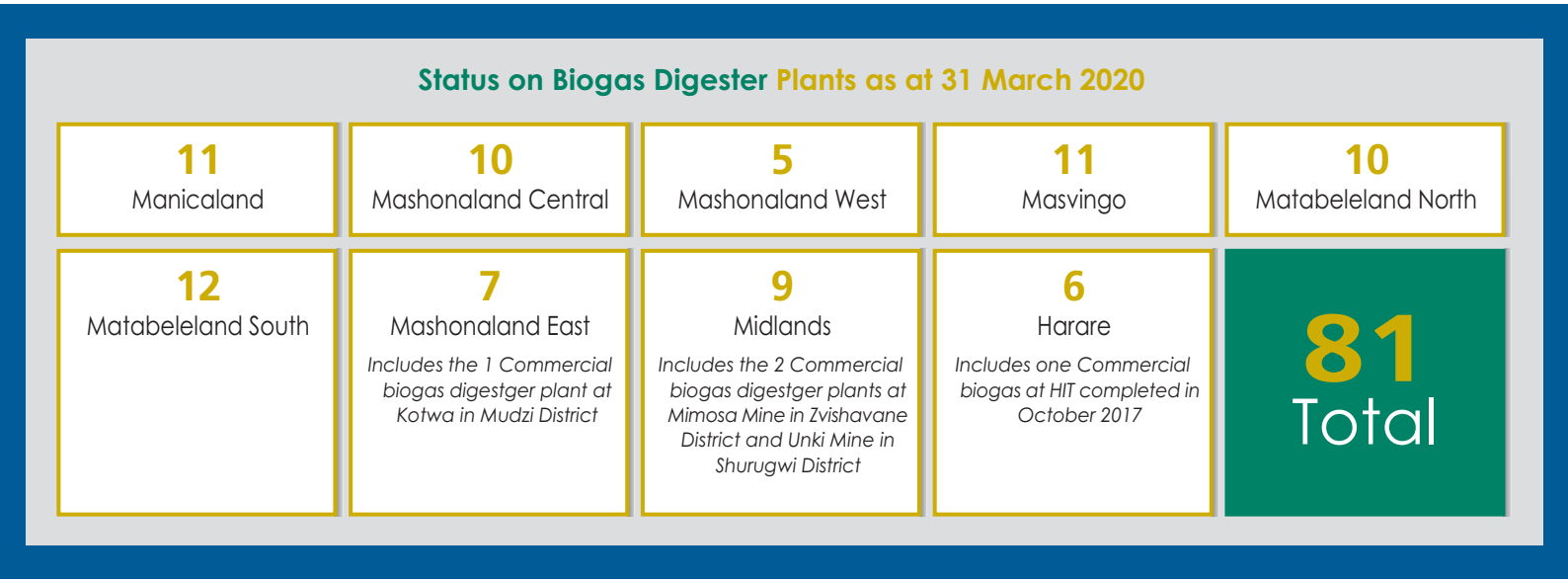
Biogas can be used for various energy requirements for example cooking and lighting. There are several advantages of using biogas. These include, but not limited to, reducing global warming and climate change, pollution, improved sanitation, reduced demand for wood and charcoal for cooking and provides a high-quality fertilizer. Despite the fact that Africa has the greatest potential for biogas projects, the technology is still in its infancy. The commercial biogas outfits in Africa currently generates 65.84 MW, with South Africa, Kenya and Ghana having the highest number of commercial biogas plants in Africa.

Zimbabwe, just like other African countries, is facing enormous environmental problems caused by pollution from organic waste. Biogas technology provides an opportunity for cleaning the environment through energy generation using organic waste. Biogas digesters provide alternative energy for both rural and urban households in Zimbabwe. Zimbabwe is currently facing an energy demand and supply gap due to increasing demand for electricity in both urban and rural communities. As such non-renewable sources of energy can ultimately ameliorate the energy deficit. Even though biogas technology is an environmentally friendly form of energy which also helps address the challenge of waste management, its uptake remains low in the country. In 2019, Juniper Publishers carried out a study which shows that, 97% of the plant owners use bio-gas for cooking, 1% for lighting, 1% for space heating in pig and poultry farming and 1% for waste management only. The common biogas designs that are promoted are the Chinese fixed dome and the Indian floating Gas holder plants. However, the Indian type is not cost effective because of the metal gas holder.

The government is promoting biogas technology as a way of protecting the

environment. This technology has the potential to create opportunities for women to carry out other activities outside fetching firewood. However, uptake has remained low because of high set-up costs, as well as a lack of knowledge about the technology. To promote upscaling of the technology, the country has a domestic biogas USD$3 million programme funded by NGOs (SNV, Environment Africa & World Wide Fund for Nature (WWF)) which has been promoting the use of biogas digesters by installing biogas units across the country. Government through the Ministry of Energy and Power Development has a national energy strategy which includes renewable energy development with the aim to replace fossil fuels. This is being done through the Rural Electrification Agency (REA) which is constructing institutional biogas digesters at boarding schools and mission hospitals aiming to provide affordable and environmentally friendly energy. The energy strategy has a target of constructing 8,000 additional household bio digesters around the country as a way of raising awareness on the importance of this technology. Below is the status of biogas digesters in Zimbabwe as of 2020 as reported by REA.

Figure 7: Biogas digesters status in Zimbabwe



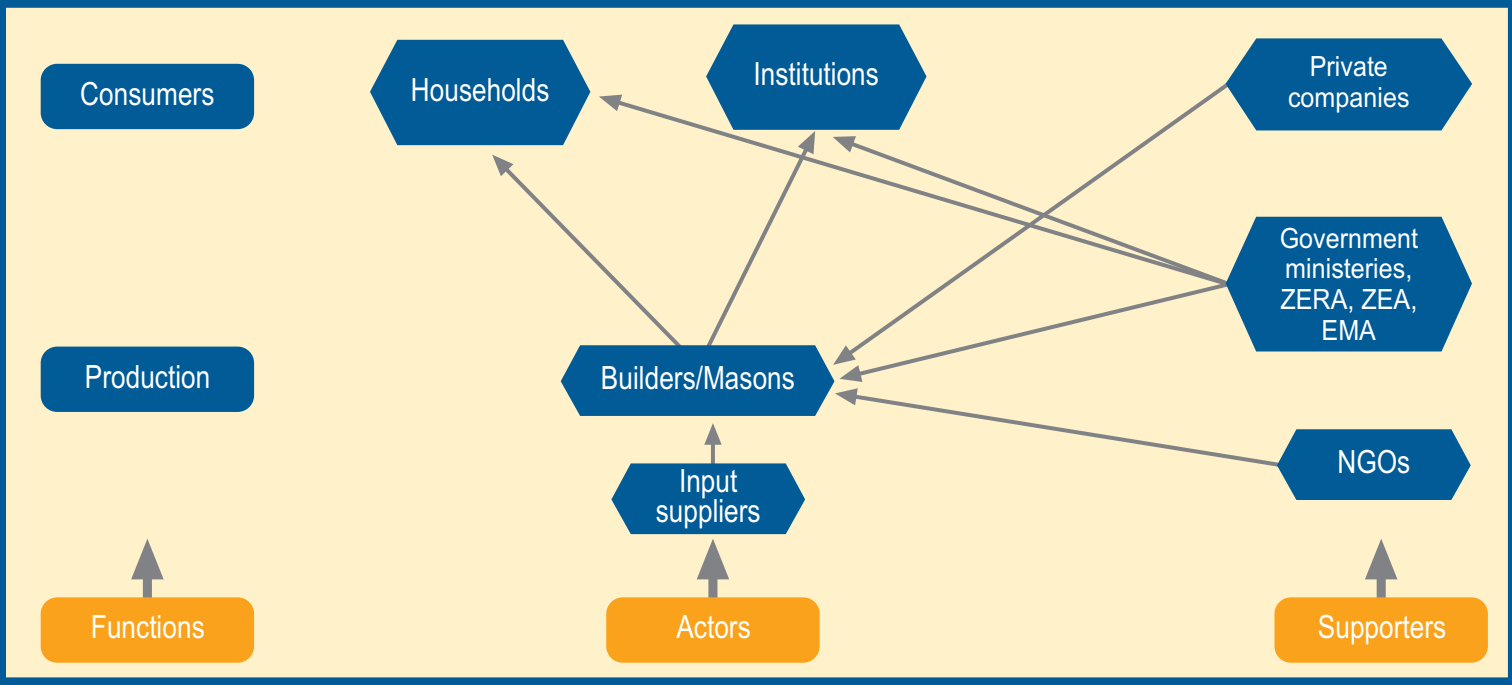
Biogas digesters are used in communities by both men and women. Both men and women provide labour requirements during construction and during production. However, due to the physical nature of construction work, all the trained builders/ Masons on ZERA website are men[12]. These are certified builders who provide the technical expertise required for constructing biogas digesters.

Value chain analysis of biogas

The value chain comprises of different processes that include biogas construction, collection of biogas feed, production and use. The actors for this value chain are outlined below.

[12] https://www.zera.co.zw/trained-biogas-masons/

Figure 8: Biogas Value Chain Map



Production

Biogas production is currently being done at households and institutions to serve energy requirements. Most household bio-digesters only provide energy requirements for cooking while some institutions provide energy requirements for refrigerators and generators. Production can be done throughout the country and throughout the year depending on availability of biogas digester feed (including animal dung, poultry droppings, plant waste, sewage, industrial organic waste and domestic waste (vegetables, waste food)). Once a biogas digester is constructed, there are no additional maintenance costs. There are two main actors in the production function as outlined below:

Builders/Masons: These provide the required technical expertise for constructing biogas digesters. The Ministry of Energy and Power Development has trained and certified over 70 masons across the country who are currently registered with ZERA. Their main responsibility is to assess the required inputs for example land, biogas feed (cow dung or chicken waste) that the household can produce daily.

Input suppliers: Supplies for biogas construction mainly come from hardware shops like N Richards, Electro Sales, and Bhola Hardware and these include among other things, cement, bricks, waterproof cement, reinforcement, mesh wire and plumbing materials.

Processing function

The processing function starts after the construction of the biogas digester. Initial feed required depends on the size of the biogas digester. A small biogas digester ($6m^3$) which is suitable for rural household requires 15-20kgs of feed and 20l of water. The digester has to be fed daily and has an internal storage system. A $6m^3$ biogas

digester produces 6m^3 of gas. The quantity and quality of biogas produced and the digestate composition are largely dependent on the type of feedstock, pH, carbon-to-nitrogen ratio (C/N), reactor temperature, retention time and type of digestion system. Farmers have to avoid leaving the feed to dry inside the biogas digester as this will block the pipes.

Market players

Information gathered during this study show that demand for biogas is limited. Currently there are no local and export markets for biogas in Zimbabwe. All the biogas being produced is used for domestic purposes. This can be attributed to the fact that there are cheaper alternatives like solar and electricity, the capital outlay required to construct a household bio digester is way beyond the reach of many rural community members. The average price for a small bio digester (6 cubic) which is suitable for household energy requirements is pegged at USD 1, 200. In addition, the technology is labour intensive. Once the bio digester starts operating, there is need to continuously introduce new feed (20l of cow dung and 20l of water). Lastly, there are competing labour requirements especially during the farming season. There are only two market players in this value chain:

- *Households/institutions:* Biogas digesters are constructed with a pipe connected directly to the kitchen hence the producers are the end users.
- *Private companies:* There are a few companies that provide construction services as well as marketing biogas appliances (stoves, biogas bags, fridges etc.). The suppliers of these appliances include GreenTEC, Green Sun Biogas and Lanforce. The picture collage show some of the appliances that are marketed by GreenTEC energy.



Regulatory policies

Interviews with both Ministry of Energy and ZERA revealed that the current regulatory environment is very supportive. Biogas production is regulated by the following actors:

1. Ministry of Energy is the policy maker guided by the National Energy Policy (2012) which seeks to promote the optimal supply and utilisation of energy, for socio-economic development in a safe, sustainable and environmentally friendly manner. It brings out Government's objective to ensure that the energy sector's potential to drive economic growth and reduce poverty is fully harnessed.
2. ZERA is mandated by the Energy Regulatory Authority Act [Chapter 13:23] of 2011], to regulate the energy sector and to raise awareness, providing funding through Rural Electrification Agency (REA) which supports decentralization of electricity including promoting renewable energy, including biogas digester con-

struction. In addition, developing standards for biogas digesters in collaboration with SAZ, REA, and other ministries as way a way of maintaining quality when it comes to construction of biogas digesters.
3. EMA works with other government ministries through the Environmental Management Act to oversee the conservation and management of natural resources. The entity supports other institutions in raising awareness on the advantages of using biogas digesters.
4. REA works with Ministry of Energy and is responsible for funding biogas digester programmes and training farmers. For example, in Mutasa district they trained dairy farmers on the use of biogas digesters.

Enabling environment

The country is currently in a promotional mode - to increase uptake of biogas digesters. There are no stringent regulations or restrictions, including licenses required. Licensing is only a requirement for units that can produce electricity in excess of 100 kilowatts. The Government of Zimbabwe through the Ministry of Energy is promoting domestic biogas technology. This is being done through the national biogas programme which has been set by the government in partnership with HIVOS and SNV to promote biogas technology and provide access to clean energy for cooking and lighting. To that effect the Ministry trained more than 70 biogas builders/ masons to take up the installation of biogas plants as well as 18 fabricators. ZERA is working on a position paper to lobby government to remove duty and taxes on all renewable energy imports.

Capacity building - results from this study show that there is lack of knowledge on the part of community members. They also lack the technical skills to construct the biogas plants. REA in collaboration with Ministry of Energy and some partners (NGOs) are responsible for training of Masons.

Business opportunities - the technology is not a good entry point for women and youth mainly due to the upfront costs involved. However, when the bio digester has been constructed, individuals or groups have an opportunity to sell the gas. Currently there are no biogas plants that are selling gas in the country because the biogas bags and appliances are expensive and not readily available in the market.

Credit facilities - In Zimbabwe biogas plant construction (domestic and institutional) have been funded by the government, Non-Governmental Organizations such as SNV, HIVOS, Environmental Africa, UNICEF and WWF, schools, and individuals. All institutional biogas plants were funded by the government through the Ministry of Energy. There are no specific credit facilities that target construction of biogas plants. Financial institutions like banks look for bankable projects, as such they prefer reputable companies with a track record.

SWOT Analysis

Table 10: Biogas digester SWOT

Strengths	Weaknesses
• Some of the materials required for constructing bio gas digesters are readily available in the communities for instance bricks, pit sand and river sand. • All the wards have huge numbers of cattle, which is the main source of biogas digester feed. The district has an average of 5,777 cattle per ward (ward 13 has the highest 11,401 and ward 15 has the least number of cattle 1524). • Availability of skilled labour. Government through the Ministry of Energy trained builders/Masons who are available in all provinces to provide construction services to local communities. • Reduction of air pollution- it reduces carbon emissions as biogas has lower carbon footprint thereby protecting our ozone layer. • Organic fertiliser- the dispensed substrate can also be used as organic manure which can be used in gardens thereby promoting food security and nutrition. • Improved hygiene -bio gas is clean source of energy.	• There are limited options for storing excess gas. Gas bags are not readily available in the market. • Maximum biogas is produced at high. temperature so during winter or cold weather there is low gas output. • Construction requires skilled labor. • Capital intensive - there are no credit facilities in the market to support construction of bio gases.
Opportunities	**Threats**
• Currently there is no legislation that is restrictive or levies and taxes paid to local authorities and central government. • Electricity is not available in most rural communities in Zimbabwe. Bio gas provides an alternative for clean energy. • Support from government. The ministry of Energy has a database of trained Masons who can be conducted for training and construction of bio gases as well as offering post construction support. • Community members can construct bio gases as groups to minimize costs and utilise excess gas. • Excess gas and production from nutritional garden can be source of revenue for our youth and people living with disability. • Protection of young girls and woman from abuse - young girls walk long distances to fetch firewood hence they are prone to abuse like rape. Zibagwe RDC has artisanal miners (makorokoza) who are known for not respecting women's rights and security, so we want to protect young girls and woman from these artisanal miners. • Reduces workload on woman - reduces time spent in search of firewood. • Reduction of deforestation.	• Most of the implements are not readily available in the market for example as stoves. There are very few companies that import these appliances from China. • The cost for constructing bio gases is beyond the reach of many rural households. For example, a 6 cubic meter bio gas which is suitable for a rural household cost USD 1200 on average. In addition, the appliances are relatively expensive for example a two-plate stove (regular) costs USD 80.00[13]. As a result, uptake of the technology will remain low. • Biogas digester has to be fed daily hence there are competing labour requirements in rural areas especially for women. • Flammable and potentially explosive. • Vandalism of bio gas digester.

[13] Interview, GreenTEC energy

Challenges in the market

- *Availability of financial resources:* Upfront costs for constructing biogas digesters is high compared to conventional technologies, hence uptake of the technology remains limited. All the implements are not locally made, they are imported mainly from China.
- There are no tax incentives for actors who import components and appliances. However, ZERA is lobbying government to consider removing duty and taxes on all renewable energy imports.
- *Lack of knowledge:* Most communities in Zimbabwe do not have knowledge about green energy options. There are few technical experts at the moment hence knowledge dissemination is still limited. As such communities are still skeptical
- Production of gas is labour intensive. The biogas digesters have to be fed daily. In addition, the main source of biogas feed comes from cattle. Farmers that do not have cattle will have to struggle to feed it. In Zimbabwe most areas experienced massive loss of cattle due to January disease hence this affects the availability of biogas digester feed.
- *Lack of appliances:* Biogas appliances are not readily available. Respondents for this study highlighted that there very few companies that sell bio gas appliances like GreenTEC energy in Harare.
- *Lack of technical expertise:* Currently there are few certified Masons/builders trained by the Ministry of Energy. As such there are unlicensed builders who are producing substandard biogases which do not produce the right quantity and quality of gas.
- *Cultural beliefs:* Many people are not interested in using waste to generate energy. For example, using sewer waste has not been readily accepted in the country.
- Limited funding to upscale training of Masons/builders.

Sector Recommendations

- Council should carry out mini feasibility studies with the assistance of certified Masons to identify the right location for the biogas digesters for instance close to dip tanks or households with a big herd of cattle. This will ensure adequate supply of biogas feed (cow dung).
- Coordinate the groups and ensure daily feeding of the biogas.
- There is need for research to produce empirical evidence on some of the challenges faced by current owners of biodigesters around the country and put measures to mitigate the known challenges.
- Council should consider engaging the Ministry of Energy and ensure that there are local Masons trained in the district. This can reduce the construction costs and create employment for locals.
- To ensure ownership and reduce dependence, RDC can set up revolving funds which can be lent to communities to build a digester which they can pay back. This has been done in districts like Guruve.

3.2.7 Fisheries Value Chain - Norton Town Council

Sector Overview

The fisheries sector in Zimbabwe is of great social and economic importance and plays a significant role in food nutrition and security, employment creation, diversification, and eco-tourism. Zimbabwe is endowed with good natural resources that promote fishery activities with a total water surface area of over 3 910 square kilometres. However, despite the availability of huge natural water resources that offer significant opportunities for fish production, the sector is not yet fully capitalised to its full potential and fish demand remains unmet. Three types of fisheries are common in Zimbabwe: capture fisheries, aquaculture (that is, fish farming) and recreational fisheries. The capture fisheries sector is further classified into the small-scale (traditional or the artisanal sector), and the large-scale commercial sector (with large capital investment). The later, is mainly concentrated in major lakes of Chivero, Darwendale and Kariba. It is estimated that fisheries sector employs approximately 44 000 people in inland fisheries[14] who are involved in fish processing, fish marketing, net making, boat building and engine repair. Small-scale producers play a significant role as they contribute over 80% of the total fish catches. In view of the above, aquaculture provides an alternative avenue for fish production and utilisation of vast water resources in the country.

Worldwide, fish farming is being recognized as the fastest growing sector in agri-business. in response to the global Blue Revolution, a deliberate move to integrate aquaculture into conventional agriculture. It is estimated that the sector is growing at an average of 11% for the past 10 years[15]. Production statistics at global level show that capture fisheries have now been overtaken by aquaculture. The growth of aquaculture as part of fisheries sector has been steadily growing driven by the increasing global demand for fish due to escalating human population as well as over-exploitation of natural fishery resources. At global level, China is the biggest world producer of fish through aquaculture. It produces approximately 60 billion tons annually. In Africa, the uptake of fish farming is gaining momentum and is steadily growing (increasing at an average annual rate of 10%). The continent is regarded as the second biggest producer after Asia. Egypt is the highest aquaculture producer in Africa followed by Nigeria. Other countries like Rwanda, Burundi, Lesotho and Benin have made the most progress[16].

In Zimbabwe, aquaculture was introduced, in the early 1950's through stocking of fish in individually owned farm dams. Further improvements came in the 1980s with the technical and financial support from non-governmental organizations. Despite the conducive physical environment in Zimbabwe (abundant water resources, conducive warm water conditions, 400,000 hectares suitable for inland aquaculture, of which less than 5% is utilised) fish farming is nascent, still in a developmental stage and currently practiced by the majority a small scale. Its contribution to the national economy is still minimal, despite a long history of support from government through the Ministry of Lands, Agriculture, Fisheries, Water, Climate and Rural Development (MLAFWCRD). In 2018, the country's aquaculture contribution to GDP was less than 0.2%. The development of the sector has been hindered by a number of factors including poor infrastructure, unavailability

[14] FAO (2023) Zimbabwe Fishery and Aquaculture country profile
[15] Aquaculture Zimbabwe
[16] Gwazani R, Gandiwa E and Poshiwa X (2022) Rural small-scale aquaculture: An assessment of farmers' perceptions and technical efficiency in Masvingo, Zimbabwe

of aquaculture inputs, lack of aquaculture training, conflicting policies, limited capital investment and poor access to credit. The sector is mainly dominated by commercial enterprises like Lake Harvest (Kariba), The Bream Farm (Kariba), Mazvikadei Fish Farm near Banket, Clairmont Trout Farm, The Trout Farm and Inn on Ruparara (Nyanga). FAO reports that currently the country produces about 18,400 tonnes of fish every year, against the potential national demand of 60,000 tonnes.

Various programmes have also been supported by development agencies to increase uptake of aquaculture in the country. Examples include inter alia FISH4ACP an initiative of the Organisation of African, Caribbean and Pacific States (OACPS) aimed at making fisheries and aquaculture value chains in Africa, the Caribbean and the Pacific more sustainable. It is implemented by FAO and partners with funding from the European Union (EU) and the German Federal Ministry for Economic Cooperation and Development (BMZ). In addition, Aquaculture Zimbabwe has been involved in a separate project that is financed by Global Environment Facility through their small grants programme. Per capita fish consumption in Zimbabwe is relatively low as compared to other countries in the Southern African Development Community (SADC) region. Currently, the countries consume an average 3.89kg and 3.64kg in rural and urban areas respectively of fresh, frozen and dried fish while the annual per capita fish consumption in South Africa and Zambia is 15.4kgs and 6.5kg respectively.[17] Zimbabwe's low fish consumption has been attributed to the perennial lack of fish and fish products on the market. Several efforts to improve aquaculture in Zimbabwe have been attempted through:

i) The introduction of exotic species such as Nile tilapia (Oreochromis niloticus),
ii) The creation of the Department of Fisheries and Aquatic Resources within the MLAFWCRD to craft strategies for inclusive and sustainable growth of fish farming.
iii) Establishment of the Zimbabwe Fish Producers' Association (ZFPA) in 2016 to promote and develop aquaculture as a fully-fledged and vibrant part of the livestock industry. It is estimated that the association has a growing membership of more than 400 farmers decentralized into five regions around the country.
iv) The crafting of National Aquaculture Policy for Zimbabwe in 2017,
v) The launching of US$432 million command agriculture in 2017 to incorporate livestock, fisheries and wildlife.
vi) The Integrated and Sustainable Fisheries and Aquaculture Production for Improved Food Security for Vulnerable Households in Zimbabwe project, launched in 2013.
vii) Successful completion of the Fisheries and Aquaculture Working Group (FAWG).
viii) The establishment of Aquaculture Quality Control Laboratory in Harare enables fish farmers to receive training in aquaculture value chain, marketing, trade and business development.

However, despite the above efforts, _sh farming in Zimbabwe is being constrained by different factors including: climate and hydrology, high risk and investment costs, increasing demand and market value for fish, poor fisheries mismanagement, underfunding, poor fishery and aquaculture practices, poor participation by communities and the environmental and social impact of aquaculture projects[18].



[17] The ZIMSTAT (2017) Poverty, Income, Consumption and Expenditure Survey
[18] Shava E (2017) Fish farming as an innovative strategy for promoting food security in drought risk regions of Zimbabwe

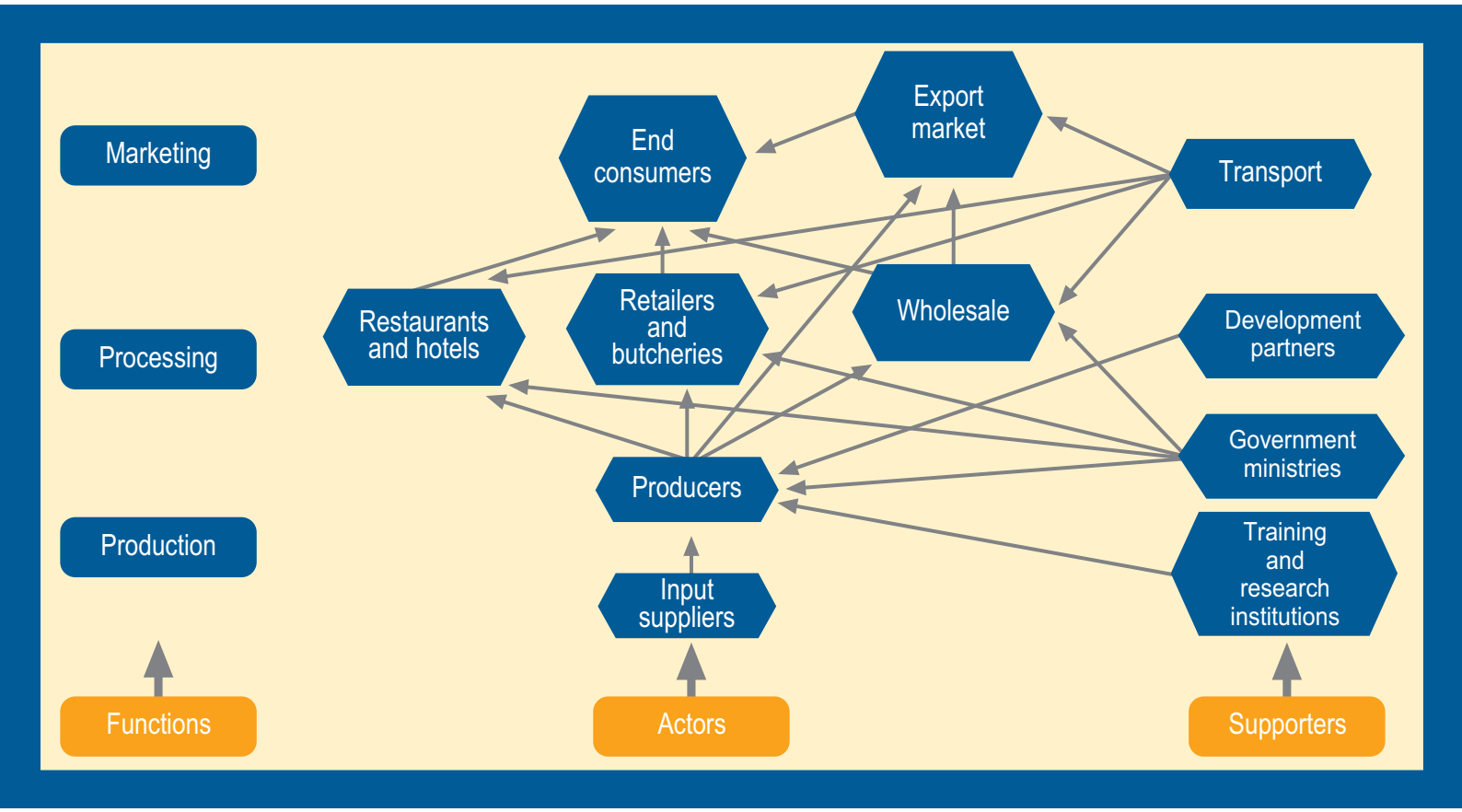
Women and youth in fish farming

Both men and women in Zimbabwe participate in fish farming. The fisheries sector has traditionally been dominated by men due to the risks associated with capture fisheries. Women have always been participating in the fisheries sector more widely in post-capture processing and marketing, processing, fish packaging, restaurants among others activities. The advent of advanced technology in fish farming like using ponds, now attracts more women. However, the upfront costs and difficulties in accessing capital, lack of access to land (for the construction of fish ponds), competing labour requirements remain a huge hindrance to the majority of women. According to the Commercial Farmers Union of Zimbabwe (CFU), fish farming sector has the potential to create 20 000 jobs (10 000 direct) and 10 000 indirect through ancillary activities like traditional fish processing, drying and marketing.

Existing fish Value Links

The fisheries value chain in Zimbabwe comprises of various actors involved in supply and distribution systems. Key stakeholders within the fish value chain identified during the study can be classified as the input suppliers, producers, traders, consumers, promoters/regulators. Different activities take place in the space between the point of capture and the point of reaching consumers. The different actors focus specific products and services, with specific activities they perform and services they provide within the value chains.

Figure 9: Fisheries Value Chain Map - Norton



Input Supply Function

The inputs required for fish production include the breeding stock, pond construction inputs (cement, UV-treated plastic,) vaccines/drugs, stock feeds and training. All the required inputs can be obtained locally.

Feed Supplies: Fish feed is readily available in the local markets. Some fish farmers import fish feed from Zambia and South Africa. The study found that the key feed suppliers in fish sector are Profeeds, Lake Harvest and Aquaculture Specialists. The last two are found in Norton. The cost of the feed for a 20x30m pond is: starter feed 9x10kgs (15USD/10kgs), growers (25kgs/26 USD) and finisher (25kgs/25USD).

Breeding Stock/fingerlings: Fish breeding is a very important and essential process for fish farming business. The key actors in the production of fish breeding stock are Lake Harvest, Lake Supplies, and Aquaculture Specialists. A pond measuring 20x30 metres requires 9000 fingerlings at a cost of 40-65 USD per thousand. The fish density is six per square metre.

Veterinary Supplies: Veterinary suppliers include fungi stop, cotton wool, gas bubble, fin rot and red gills. The main suppliers of drugs and vaccines for fish production are Agrimarine, Pahurudza fish, Farmalot and Aquaculture specialists. The average prices are as follows: fungi stop (USD12), bacteria stop (USD14), sodium metabisulphite tablets (USD10) and cuso.

Construction supplies: Include cement, bricks, plastic sheets (dam liners). The main suppliers are hardware shops.

Training: Currently fish farmers rely on private companies that offer a wide range of services for instance pond construction, production and marketing.

Production Function

Fish production involves breeding, feeding and performing routine operations such as monitoring water quality and replacing water at different intervals, adding coarse salt to remove algae at specified periods for instance once a month, regular checks i.e. fish weight. The study found that there are different breeds of fish that the farmers produce in Zimbabwe. The popular breeds are Talipia niloticus/Kariba bream and Trout fish. The following table indicates the types of fish and the time required to mature.

Table 11: Types of fish and maturity time

Type of fish	Duration
Talipia niloticus	6 months
Trout fish	9 months
Base	12 months
Catfish	18 months
Carp fish	18 months

Fish production in Norton is mainly carried by few individuals with land. Most of the residents do not have adequate land (the average household stands are 200m^2) which is not enough to construct a standard fish pond. At national level, there is a drive towards commercialization which is being driven by the ZFPA and supported by deve-

lopment organisations like FAO. The production function should be supported by different actors including, Department of fisheries, AGRITEX, Parks and Wildlife and the Local Authorities (Rural& Urban Councils). Councils (urban and rural). Currently government is not offering extension services to fish farmers.

Processing Function

For small scale fisheries, fish processing involves value-adding activities like cleaning/removing gill, gutting, freezing and packaging depending on client demands. Big corporates like Lake Harvest grade the fish before beheading, cleaning, and freezing. Currently processing for fish in Zimbabwe is limited and there is limited infrastructure. Lake Harvest is the only private company that has an elaborate fish-processing infrastructure that comprises a state-of-the-art fish factory. As such most fish catches are sold fresh, frozen, sun-dried or smoked. Hotels and restaurants offer end-market processing by changing fresh and dried fish into food products.

Marketing

Marketing involves formal and informal activities. Fish products are commonly sold on the informal markets, butcheries, supermarkets as frozen or fresh fish. Results from the interviews and FGDs conducted show that fish trading mainly takes place within fishing the communities and beyond. Prices of fish depend with the season. In winter prices are higher due to limited stocks. Fish sold in the local markets fetch relatively low prices o $3/kg on average. Using available data emerging from the study, average prices of fish from capture fisheries differ. Fishmongers sell their produce at relatively cheaper prices because they do not pay licence fees. Fisheries and cooperatives pay licenses to the Parks and Wildlife Authority and normally sell their fish at an average price of 3/kg. Data emerging from retailers shows that the price of fish is almost comparable to that of chicken.

There are significant differences in the way fish is handled and traded in Zimbabwe. In Norton fish markets do not have cooling or freezing facilities available. Trading is still largely carried out by an overwhelming number of street marketing agents. Fish is acquired by the traders at lake (landing sites) and distributed all-over the city by agents normally using plastic buckets and cooler boxes. Most of the fish in Norton is sold on the domestic market and consumed fresh. However, other traders are involved in artisanal processing techniques such as salting and drying in order to sell on the market.

Wholesaling and Retailing Function

The wholesaling and retailing of fish are done by a number of actors. Fisheries play the wholesaling business. These sell to the public directly or to supermarkets, butcheries. Large chain Supermarkets and butcheries are engaged in retail of the fish. With regard to the marketing channels, the study found out the following;

Fishermen-to-local market/consumers: To serve the household consumption needs. Fish harvested from the lake are sold directly at fish markets in Norton. Some of the buyers also transport the fish and sell at their households or other urban centres such as Harare, Bulawayo.

Fisheries-to-Local Market/consumers: To serve the public. The market is predominantly fresh fish. As highlighted above, some transport fresh in buckets and cooler boxes to various destinations for packaging and selling to other local markets

Fisheries-Middlemen-Butchery/chain supermarkets-consumers: To supply fish to consumers through intermediaries who buy fish directly from the fisheries and supply local butcheries or chain supermarkets who in turn sell to the public.

Fisheries-International market: Currently Lake Harvest dominates the export market. After harvesting, frozen fish or fillets is exported to the European market mainly supermarket chains across northern Europe and Spain and in the Southern Africa region.

Sector Regulatory Environment

The policy environment that controls fisheries in Zimbabwe has many players whose roles interlink and overlap. Currently there is an absence of overall national policy frameworks that govern fish farming. The fisheries sector is recognised as a livestock hence the same institutions and laws that govern the management of wildlife and other natural resources apply to the fisheries sector. The following institutions govern different aspects of fisheries sector in the country:

Zimbabwe Parks and Wildlife Management Authority (ZPWMA)

Fisheries development and production: The ZPWMA has responsibility for fisheries development in the whole country in state water bodies such as Lake Kariba, Lake Chivero, Lake Manyame and Lake Mutirikwi. The Parks and Wildlife Act (Chapter 20:14 of 2001, as amended) is the principal legislation and management act that governs the development, control, and management of fisheries throughout Zimbabwe. In addition, ZPWMA is also mandated to carry out the following:

- Fisheries research and management within the Parks Estate. There are fisheries research stations at Lake Kariba, Lake Chivero, Sebakwe, Mutirikwi, Nyanga and Matobo. Most of the research at these stations is on capture fisheries of the indigenous species. Aquaculture research is also conducted at Lake Chivero and Lake Mutirikwi. Nyanga Research Station is mainly involved in breeding trout for stocking in the dams within the Nyanga National Park and nearby rivers. In addition to breeding, fish nutrition and health research is also done specifically for trout production.
- Fish conservation as covered in part XIV of the Zimbabwe Parks and Wildlife Act (Chapter 20:14 of 2001, as amended).
- Enforcement of regulations governing production and monitoring of aquatic resources outside the Parks Estate as well as monitoring of indigenous and exotic fish species.
- Licensing of commercial fishing operations.

Department of Research and Specialist Services (DRSS)

The main mandate of the DRSS is to carry out fisheries research (Fish research (Breeding, Nutrition and Health). There are two institutes under the department: Henderson and Makoholi Research Institutes in Mazowe and Masvingo respectively. The department has the following responsibilities:

- The Department`s client driven research programme focuses on nutritional intervention for sustainable fish production, integration of fish production with other livestock and horticultural enterprises, physiological manipulation of fish for improved growth and production, breeding and provision of fry and fingerlings for stocking dams and ponds.
- Fish conservation: to conserve indigenous fish species.
- Training and capacity building: The Department works in conjunction with Department of Livestock Production (DLPD).
- DLPD in training of fish farmers and other stakeholders as well as dissemination of research output.

Department of Livestock Production (DLPD)

The department has the following responsibilities:

- Extension services: carrying out fisheries extension in small dams throughout Zimbabwe. The Department also trains fishermen on sustainable exploitation of fish from dams, and smallholder farmers on aquaculture. It recommends appropriate fishing gear including correct net sizes according to numbers of fish per given dam.
- Pond designing and construction: It also designs and constructs fishponds, as well as recommends suitable species for pond culture.
- Monitoring and evaluation of fisheries projects.
- Dam stocking and restocking as well as dam surveys to determine fish populations, sizes and species composition.
- Fisheries development and production in small dams: works with RDCs that have appropriate authority status and assists communities to manage fisheries resources in small dams.

Rural District Councils

Management at local level: have appropriate authority to manage fisheries in their areas of jurisdiction.

Business opportunities for women and youth in the value chain

Fish farming is regarded as the fastest growing food producing sector in the world. As such it presents good opportunities for women and youth through production, value addition, marketing and export of processed fish product. It is a good entry point for women and youth as it is easy to manage and has high returns if properly managed. The turn-around time is relatively short. With the establishment of ZFPA mandated to promote and develop aquaculture with strong value chains that incorporate small-scale commercial fish farmers, presents opportunities for equal entry into the sector by any interested groups. The existence of stimulatory policies, enabling policy framework for instance the drafting of the National Fish Policy seeks to rationalize legislation and other strategic issues relating to fish farming, support programmes and strategies provides opportunities for women and youth. Currently there are no laws that compel fish farmers to pay levies and taxes hence it gives business opportunities to women and youth. The environment is conducive for growth. There is support from government as well as development agencies like FAO.

Capacity building: Fish farming is still in infancy stage in Zimbabwe. The majority of fish farmers lack knowledge on production requirements, opportunities for export markets, policies that regulate the value chain. Respondents for this study highlighted that they are mainly interested in methods and practices for fish farming. There are several players involved in training including government departments and private companies like Agrimarine and Aquaculture Specialist.

Financial and credit facilities: Respondents for this study highlighted that currently there is a general absence of loan products in the market for small scale producers. As such most of the actors in the value chain are self-financing. At individual level, fish farmers in Norton finance fish projects through personal savings, or apply for financial resources to finance their production requirements. The government through MWACSME offers grants targeting groups. However, these are not specifically targeted at fish farmers. They depend on fund availability and specific projects being funded by government to empower women. The financial institutions interviewed (CABS, CBZ, Steward Bank) during the study showed that most banks have loan facilities for farming (not specifically fish farmers). However, most farmers do not meet the requirements such as collateral security (title deeds), production records and history (at least 2 years); and

banking history. Most banks require farmers to have bank account and a history of banking with the specific bank.

While Empowerment Bank is not offering cash support for women in fish farming, they have a product for women who work in groups and the bank uses mutual guarantee approach. Once a project has been identified, the bank can pay for inputs directly to the input suppliers. The group should comprise of 3-5 women, doing a similar project.

SWOT analysis

Table 12: Fisheries Value Chain SWOT

Strengths	Weak nesses
• Resources are readily available - reliable source of water, enough land for fish ponds. • Availability of technical assistance. • Availability of the feed ingredients in the market (Profeeds). • Fish production is not seasonal in controlled environments. • There are 3 fish breeds which are available on the market. There is scope to experiment with all the three and select the best breed suited for Norton climatic conditions. • Production costs are relatively low when using local labour. • Viable fisheries market locally and regionally (availability of local butcheries/ supermarkets to sell their produce). • Availability of training and research institutions for capacity building.	• Fish production cycle is longer - sex reversed fingerlings takes long to reach maturity. • Expensive construction and operational cost. • Inadequate infrastructure (modern equipment for production and inadequate cooling chain). • Lack financial support especially to small scale producers. • Inadequate capacity to strategically intervene in the whole value chain to improve competitive advantage.
Opportunities	**Threats**
• The site for the project is near the main road leading to town. • Employment creation - the project will create employment opportunities for women and youth. • The project site is close to complimentary industries (power line, BSF - Processing company, Profeeds- supplies of feed).	• Fish is perishable - requires refrigerated transport. • Increased competition from established firms like Lake harvest. • Unstable economic environment. • Flooding. • Predators. • Security risks, thefts by fish mongers.

Constraints and challenges in the market

Respondents were asked about some of the challenges that hinder fish farming in the target area and Zimbabwe in particular. Some of the challenges are highlighted below;

Limited knowledge - Technical know-how is very limited despite the availability of support services. Respondents highlighted they did not know about the existence of extension services for fish farming.

Capacity and Skill - Fish farmers lack technical skills required to construct and maintain fish ponds. The technology has not been effectively marketed at national level despite the introduction of ZFPA in 2016. High business costs - start-up capital required is relatively high. Results of the study show that on average start-ups require more than USD3 000 as initial capital for a 20x30m pond. This also requires land which is not readily available in urban areas.

Accesses to Finance - Participants indicated that financial sector (banks, micro-finance institutions) do not invest in the fisheries sector. Short loan repayment periods, low profit margins, and high seasonality make it difficult for fishers and banks to trade.

Recommendations

- Council should take advantage of the different programmes offered by government and closely collaborate with the newly established department of fisheries to ensure that they comply with national regulations as well as access funding opportunities for the fisheries sector.
- *Capacity building:* Fish farmers need to be trained on all technical aspects of fish farming including business management skills and financial literacy and record management. This is necessary to reduce their vulnerability and promote participation in different levels of the value chain.
- *Financing:* the start-up capital required for fish farming is high. As such government should avail credit/loan facilities for women and youth through government grants offered through the MWACSME.
- *Coordination:* Council should organize women and youth interested in fish farming and organize them to be registered as a cooperative. The groups should also affiliate or register with ZFPA.

4 GENERAL CONCLUSIONS AND RECOMMENDATIONS

4.1 General conclusions

The selected VC present GLZ and the 12 participating local authorities, CoE, a perfect opportunity to transform the lives of the participating women and youth, through the creation of a better economic opportunities. This leads to increased income and enables them to better manage their own livelihoods in an inclusive and sustainable way.

General recommendations

4.2

- For a sustainable business model, the CoE need to consider and explore the possibilities of running these income-generating ventures as Strategic Business Units where their operations are autonomous. Governance structures can be a mix of the MSMEs and the councils. This will help the councils to play a facilitatory role to allow economic development of their citizenry and communities.

- Some council by-laws seem to hinder development of the identified VC. It is recommended that a consultative process be put in place between the targeted beneficiaries, who are mainly in the informal sector, to review and lobby for supportive by-laws. A model being implemented by City of Bulawayo where monthly meetings with representatives from the vendors association which has seen a review of non-progressive by-laws, could be replicated in other councils.

- Procurement processes need to be streamlined in the councils to avoid implementation delays of the project. The research found that in some local authorities' public procurement processes may be cumbersome and this potentially could derail the project. It is recommended that a robust procurement process be put in place outside of the local authority/ public procurement process to enhance efficiency and timeliness.

- The research found that in two VC, the flowers VC and the basketry VC, the lucrative export markets are dominated and controlled by individual corporates or private individuals. This will make it difficult for the project target groups to export their products. It is recommended that GLZ commissions two (one for arts and another for flowers/horticulture) separate studies by Trade/Export expert consultants to help identify markets and develop a mini-manual on how to for the identified VCs. The deliverables for this assignment need to be practical and clearly identify strategic entry points for the export markets.

- The councils are recommended to test their proposed ventures against the PESTLE (Political, Economic, Social, Technological, Legal, Environmental) model before they implement them. A PESTEL analysis is a framework or tool used to analyze and monitor the macro-environmental factors that have an impact on the different business entities that will be set up as a result of the GLZ support.

- The research found that almost in every VC the beneficiaries (women and youth) have not had an opportunity to work together before this current opportunity and issues of social cohesion and group dynamics need to be addressed through training at the onset. It is recommended that trainings in soft skills be done to better prepare the women and youth taking part in the VC.

5 ANNEXES

5.1 Terms of Reference

GENDER LINKS FOR EQUALITY AND JUSTICE

30 Samora Machel Avenue
6th Floor Nicoz Diamond Building
Harare, Zimbabwe
Tel: +263 24 2798600
website address: www.genderlinks.org.za

January 2023

Terms of reference for market research and analysis

Introduction and background

Gender Links (GL) is a regional Women's Rights organsation that is committed to an inclusive, equal, and just society in which women and girls exercise their rights in accordance with the SADC Protocol on Gender and Development and related regional, continental, and global instruments.

Gender Links is implementing a project that is promoting gender-responsive Local Economic Development (LED). The LED programme is part of the economic justice pillar of GL's 2021 to 2025 strategy. The programme seeks to contribute to reduced poverty and enhanced livelihoods for women and youth through gender-responsive and inclusive market systems development. This will be realized through increased competitiveness of micro, small and medium enterprises (MSMEs) resulting in increased incomes and improved standards of living for women and youths in 12 urban and rural councils.

The LED project has the following specific objectives:

- To develop and cost 12 gender-responsive local economic development plans.
- To create a sustainable model for training and supporting women entrepreneurs in 12 local authorities.
- To ensure that women-owned enterprises have access to council procurement including tenders.
- To enhance women and youth's access to finance, markets, and joint ventures through women's LED networks; learning, and sharing platforms.
- To "walk the talk" by establishing viable LED flagship enterprises in 12 local authorities.

LED will be implemented within the Market Systems Development (MSD) Approach[19] which aims for sustainability and large-scale, system-wide impacts, and the inclusion of marginalised people in market systems. This helps women and youth to access

[19] The Market Systems Development (MSD) approach is also known as Making Market Work for the Poor (M4P) or Inclusive Systems Approach. It is a set of principles, frameworks and good practices that guide both analysis of market systems and developmental interventions which bring about pro-poor change within them.

services, generate jobs, make income, and reduce poverty. The key elements of the approach are:

- Market research and analysis.
- Marginalised people (women and youth) operate in existing market systems.
- Innovative solutions should be sought to improve their enterprise competitiveness.
- Partnerships with other market actors for the sustainability of enterprises.
- Market players should benefit from the partnerships.

Gender Links would like to facilitate market research and analysis for targeted value chains to guide market development interventions.

Objectives of the assignment

The overall objective of this assignment is to carry out market research and analysis of the following thematic areas: Arts and culture; clean or renewable energy; fisheries; horticulture; waste management, and recycling value chains. The research will provide evidence-based information to programme design and implementation for improved performance of micro, small and medium enterprises. In particular, the market research should shed light on the opportunities, challenges, viability of existing and potential markets, employment opportunities, product expansion, market viability, value addition opportunities, quality improvement, input availability, and recommendations for each value chain.

Specific terms of reference

Gender Links seeks the services of either an individual, group, or firm to conduct market research and analysis guided by the following specific terms of reference:

1. Target at least 2 of the following value chains: Arts and culture; clean or renewable energy; fisheries; horticulture; waste management and recycling.

2. Review existing market research for the targeted value chains and other relevant project documents.

3. Draft an appropriate methodology for primary data collection and develop data collection tools (e.g., market survey, interviews with market actors, key informant interviews) that will be used to conduct the market research and analysis (to be reviewed by Gender Links). The methodology should specifically consult and identify opportunities for women and youth in urban and rural communities.

4. Plan and conduct Market research and Analysis for the selected value chains focusing on:
   - Identification of major local and export markets and ways to best penetrate selected markets. Include a SWOT analysis of markets.
   - Assessment of the size of markets, the volume of sales, and market segmentation.
   - Local market structure.
   - Business opportunities (input supply, production, processing, and marketing) available to women and youth in the value chains for commercial enterprising, and the impact of their participation on the quality of business transactions in the markets.
   - Strategic entry points for women and youth to fully utilize the available opportunities in the markets for their products.
   - Identify capacity gaps of entrepreneurs in sustainable viable enterprising and marketing.

- Enabling environment (e.g., regulatory context- challenges and opportunities; policies affecting market access, levies).
- Market players (input and output market players, consumers, sellers, traders, middle-men, employers) behaviour.
- Procurement mechanisms, market requirements (standards, conditions for delivery), and prices.
- Identification of constraints and challenges in the market.
- Identification of quality business support services available.
- Key partnership opportunities for MSMEs.
- Financial and credit facilities for identified value chains (e.g., value chain financing, warehouse receipting).
- Identification of key business support services, MSMEs need to perform effectively.
- Any relevant success stories and case studies of MSMEs in targeted value chains locally, regionally, and internationally.
- Other areas as identified by the methodology and data collection.
- Strategic recommendations for MSMEs in the value chain.

Expected deliverables

- Inception report outlining approach and plans for the consultation processes.
- Market analysis Report (Refer to Specific terms of reference) including:
  - Description of key markets and key players.
  - SWOT Analysis for key markets.
  - Lessons learned.
  - Gender and Environmental observations.
  - Strategic recommendations and conclusions.
  - Annexes.
  - Summary PowerPoint presentation of the market research and analysis.

Timeframe

The entire work is expected to be completed in 30 days from the signing of the contract. This period includes fieldwork and reporting.

Required skills and experience:

- Relevant Master's Degree in Marketing, Business, or other relevant degrees.
- An in-depth understanding of market research and analysis.
- Minimum of 10 years' experience in business development including market studies:
- Evidence of similar work done before.

How to apply

Interested individuals, groups, or firms should submit a cover letter expressing their interest in the position with the following documents:

(i) Technical proposal outlining the methodology to achieve the terms of reference, indicating experience from similar assignments, consultant' CVs as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references.
(ii) Activity work plan
(iii) Financial proposal.

These should be submitted to *zimmanager@genderlinks.org.za* cc: *zimfinance@genderlinks.org.za* on or before 8 February 2023

5.2 Research Instruments

Research questions for FGDs & KII

While all the questions can be applied to both the FGDs and KII for triangulation purposes, consideration can be made as follows should time not permit:

- Section A is meant for FGDs discussion using a market value chain mapped out on a flip-chart; and
- Section B to D is meant for KII discussions.

Task Objective	Research Questions
A. Market Systems Mapping: *This section draws and analyses market models for the targeted VCs, informed by literature review and preliminary consultations with project stakeholders.*	
• Analyse local market structure. • Identification of major local and export markets and ways to best penetrate selected markets. Include a SWOT analysis of markets. • Identification of constraints and challenges in the market. • Enabling environment (e.g., regulatory context-challenges and opportunities; policies affecting market access, levies). • Market players (input and output market players, consumers, sellers, traders, middlemen, employers) behaviour. • Procurement mechanisms, market requirements (standards, conditions for delivery) and prices. • Identification of quality business support services available. • Financial and credit facilities for identified value chains (e.g., value chain financing, warehouse receipting); and • Identification of key business support services, MSMEs need to perform effectively.	**What are the key building blocks for the target VC from production, processing & marketing in terms of:** • Market players (input and output market players, consumers, sellers, traders, middlemen, employers) behaviour. • Enablers (e.g., regulatory context- challenges and opportunities; policies affecting market access, levies). • Procurement mechanisms, market requirements (standards, conditions for delivery) and prices. • Service providers (transport, extension, other MSMEs needed to perform effectively, financial and credit facilities e.g. value chain financing, warehouse receipting, credit guarantee) ◆ What are the general strengths, weaknesses, opportunities and threats in the value chain market? ◆ How are people in the sector disadvantaged due to gender constraints, age, disability, geography etc?
B. Sector Relevance: *This section focuses on the relative potential of the value chain sector to benefit the target group of women and youth.*	
• Identify business opportunities (input supply, production, processing, and marketing) available to women and youth in the value chains for commercial enterprising • Strategic entry points for women and youth to fully utilise the available opportunities in the markets for their products.	• How are women and youth currently involved in the local and export markets? Indicate the number of target groups active in the sector. • What barriers and opportunities exist for them to participate in commercial enterprising? • Are the women and youth at start-up or scale-up stage, and what factors support this? • What are the pathways for women & youth to participate in the local and export markets, making use of opportunities identified earlier?

Task Objective	Research Questions
C. Inclusive Growth: *This section focuses on potential to improve women and youth's involvement and participation in markets that are growing.*	
• Assessment of the size of markets, the volume of sales, and market segmentation.	• What is the overall size of the market with respect to volume and value of output, demand and supply interactions? • What is the previous (past 5yrs) and future (next 5yrs) growth expected of the VC? • What are the current levels of innovation, productivity and competitiveness in the sector? (give examples)
D. Feasibility To Stimulate Change: *This section focuses on the feasibility to facilitate change in the value chain, based on opportunities to take on board new ideas, innovation and collaborations.*	
• Identify capacity gaps of entrepreneurs in sustainable viable enterprising and marketing. • Key partnership opportunities for MSMEs.	• Identify capacity gaps of entrepreneurs in sustainable viable enterprising and marketing • Key partnership opportunities for MSMEs _ What are the capacity requirements for entrepreneurs to be profitable and sustainable in the VC? • What gaps exist between the requirements and current capacity? • Which organizations have a good track record of innovating and investing in this sector? • What significant investments have recently been made or are planned for the near future? • Are there any public/ private agencies providing support services to women and youth that can potentially collaborate with the target group?
Insert case studies of MSMEs in targeted value chains locally, regionally, and internationally for reference.	

5.3 List of interviewees

Name	Position	Contacts
Bulawayo City Council		
Nhlanhla Dabengwa	Diamond Berry Enterprises	0772536012
Tyrone Khumalo	Diamond Berry	0787246539
Khumalo Sibongile	MWACSMED	0773277197
Bongani Dhlakama	Zimbabwe Tourism Association	0712591324
Thando Sithole	BCC	0772677247
Tsepang T Nare	BCC	0776249903
Loveness Moyo	BCC	0785041702
Cleopatra Dube	National Arts Council	0773680287
Sikhulekile Dube	Pumula Arts Craft Centre	0785117472
Sizalobuhle Sebele	Artist	0785797900
Dorothy Jumbo	ECLF	
Opha Ndlovu	ZWIDE	
Bertha Moyo	MYSAR	
Qoral Jackson	Girls in STEM training	
Lorraine Phiri	WILD	0787263499
Dictor Khumalo	BCC	
Linda Sibindi	BCC	
John Mpofu	BCC	
Thubelihle Moyo	Bulawayo Township Arts	0784252384
Sibongile Khumalo	Community Development Officer	0773277197
Cleopatra Dube	Provincial ARTS Manager	0772680287
Mirriam Ndlovu	Crafts Production Officer	0775414539
Charity Nyathi	Arts, Culture & Heritage Officer	0772636881
Jane Tylor	Founder Collaborative Craft Projects	0771964083
Umguza RDC		
Zvivoyivoyi	District Development Coordinator	0783085576
Desire Ncube	Assistant District Development Officer	0772668865
Leonel Maposa	Consultant Agronomist	0771922185
Thulani Ndlovu	Agritex - Umguza District Head	0772322888
Tanyaradzwa Musundire	Gender Officer (MWACSME)	0771922185
Vusa Sikhosana	BDO - Umguza District	0786049548
Nozipho Nkala	ZimTrade	0772807836
Linda Maposa	Gender Officer - Umguza	0772920815
Mary Shelton	Councilor Umguza	0712330121
Alexander Mnkandla	Councilor Ward 6, Umguza	0712517788
Mr. Hadebe	ADRA	0773771895
Waste recycling value chain		
Matilda Berejena	Kadoma Waste Picker	0773528077
Mr Hamilton Gomba	Kadoma City Council	0715459033
Mr Mushunje	Steel Makers Pvt Ltd	0788 955 713
Mrs Mutizwa	Ministry of Youth	0773739774
Kadakwashe Gadzira	Clean Up Campaigns Activist	0775218107
Mr Masasa	Ministry of Women Affairs, Community, Small and Medium Enterprises	0772740076
Mr Chitima	Environmental Management Agency	0773455644
Mr Kabesa	Environmental Management Agency	0772844851

Name	Position	Contacts
Fisheries		
Itai Tendaupenyu	Parks and Wildlife Scientific Department	+263 77 904 4312
Mbundure A	Fisheries and Aquatic Resources Director	+263 71 295 4306
Mr Chiramba	Aquaculture Specialists	+263771963195
Mr Jacha	Environmental Management Agency	+263782074941
Mrs Zvavahera	Handerson Research Fisheries Department	+263774431965
Itai Tendaupenyu	Parks and Wildlife Scientific Department	+263 77 904 4312
Biogas digesters value chain		
Edwick Madzimure	Women's International League for Peace and Freedom	0719856699
Blessing Jonga	Ministry of Energy	0733551854
Tobias Mudzingwa,	ZERA	0716 800 229
Mrs Chideya	Ministry of Women Affairs	0715813600/7 7 30 55079
Mr. Chanhuwa	Biogas digester, Chirumhanzi Mason	0719 599 352
Mr Gomo	Ministry of Youth	0775360727
Mushroom value chain		
Ms Makonza	Manyame RDC - Gender Focal Person	0 773514021
Ms Dube	Manyame RDC- Gender Champion	0 772515178
Gilbert Musonza	Manyame RDC- Councilor	0773085389
Victor Mazvuma	Ministry of Youth	0 773804736
Olga Nhari	Women in Agriculture Union	0712008054
Ms Mukute	Min of Women's Affairs - Business & Coop Dev Officer	0772278164
Mr Guta	Min of Women's Affairs - Bus Dev Officer	0773544660
Ms Matinhira	Ministry of Agric - District Head	0 773325027
Mrs Kubvoruno	Small scale mushroom grower	0 783329712
Mrs Muchemedzi	Small scale mushroom grower	0 773622257
Mr T Marume	ZimTrade	0773654186
Ms Linda	Horticulture Development Council	info@hdczim.com
Hushe Muzenda	Horticulture Development Council	support@hdczim.com
Mususa	Min of Agric - Dep Director - Marketing & Trade Strategic Planning & Bus Dev Directorate	gamumusa360@gmail.com
Ratidzai Katande	Min of Agric - Gender Focal Person	Katanderatidzai@gmail.com
JM Kuruba	Agricultural Marketing Authority - Agribusiness Lead	jmkuruba@ama.co.zw
Mrs Pelagia Gangaidza	Smallholder woman farmer/aggregation - mushroom	
Mhlanga	CEO -Dabuka Mushrooms (ex-Mushroom Association)	
Flowers value chain		
Puwayi	Gainshope Farm-Smallholder farmers/women involvement - flowers	0775348531
Manager	Floribunda	0773000205
Jonathan Mazura	Masvingo City- Project Focal Person	0772293062
Agripper Chibaya	Lecturer - Masvingo Polytechnic	0715920135
Mrs Jessicah Rugumi	Minsitry of Youth	0773025945
Mrs. Rufu	Crop specialist	0773171012
Martha Makore	Annecress Florists	0779831864
Mr. Shakapuku -Masvingo	Masvingo - OK Zimbabwe Branch Accountant	0777271312
Mr Chinamasa	Large scale flower farmer - Export	0776792733

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Gender Links (GL) put out a call seeking experienced consultant(s) to conduct a market research and analysis of five (5) value chains (VC), namely: **Arts and Culture, Clean or Renewable Energy, Fisheries, Horticulture, Waste Management and Recycling**. The overall objective of the assignment was to carry out a market research and analysis of the indicated VC for a project that GL, in partnership with the Ministry of Local Government and Public Works (MLGPW) is implementing to promote gender-inclusive Local Economic Development (LED). The programme is supported by the Embassy of Sweden in Zimbabwe.

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