



ZOOMLION GHANA LIMITED

PROJECT '1 MILLION WASTE BINS'

March 2017

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Corporate Information, Advisors and Other Parties

Board of Directors

Dr. Joseph Siaw Agyepong
 Mr. Samuel Allotey
 Mr. Kwabena Adjei-Mensah
 Dr. Patrick Cline
 Mr. Moses Mensah
 Mr. Lawrence Laryea

Registered Office

Zoomlion Ghana Limited,
 Nmai Djorn, Ayensu River Estates,
 University Farm Road,
 Accra.

Auditors

Kissi Consult
 13TH, 12TH Lane, Osu
 P.O Box GP 10270
 Accra, Ghana

Transaction Advisor

Union Capital Ltd
 No.753 Pawpaw Street,
 Accra, Ghana.
 +233 20 446 4436

Banker

Zenith Bank Ghana Ltd
 Premier Towers, Liberia Road
 PMB CT 393
 Accra, Ghana

Definitions

ARB	Apex Rural Bank	GPR	General Packet Radio
ASABE	American Society of Agricultural and Biological Engineers	ISO	International Organisation for Standardisation
BN	Billion	ISWA	International Solid Waste Association
BSc	Bachelor of Science	KNUST	Kwame Nkrumah University of Science and Technology
CAN	Confederation of African Nations	LIBOR	London Interbank Offer Rate
CDM	Clean Development Mechanism	MA	Master of Arts
CGMA	Chartered Management Global Accountants	MBA	Masters in Business Administration
CIM	Chartered Institute of Marketing	MM	Million
CIMA	Chartered Institute of Management Accountants	NPV	Net Present Value
CIMG	Chartered Institute of Marketing, Ghana	O&M	Operations And Maintenance
DANIDA	Danish International Development Agency	POS	Point Of Sale
DSCR	Debt Service Coverage Ratio	ROA	Return On Asset
EAT	Earnings After tax	ROE	Return On Equity
EBIT	Earnings Before Interest and tax	SARL	Societe a Responsabilite limitee
EBT	Earnings Before Tax	UCL	Union Capital Limited
EGBL	Equatorial Guinea Business Links	UNDP	United Nations Development Programme
EI	Environmental Innovations	US\$	US Dollar
EMP	Environmental Management Policy	WACC	Weighted Average Cost of Capital
GHS	Ghanaian New Cedis	YRS	Years
GIZ	Gesellschaft fur Internationale Zusammenarbeit	ZL	Zoomlion Ghana Limited

1.0

Executive Summary

Brief summary of the report

ON GHANA LIMITED



Executive Summary

Subject	Highlights
Sponsor	Zoomlion Ghana Limited is a leading waste and sanitation management company with operations in Ghana and Africa. The company offers waste management solutions including communal container services, cesspit emptier services, water tanker & janitorial services, solid waste collection services and landfill site management etc.
Purpose of Report	<p>This report presents a business case and need assessment for funding. This has been prepared at the request of the Management and Board of Zoomlion Ghana Limited.</p> <p>The purpose is to enable the company acquire a USD 40 million credit facility from investors in order to fund a waste management project in Ghana. This report is restricted for this purpose only, and is not to be used by any other party for any other purpose.</p>
The Transaction	<p>Zoomlion Ghana intends to procure 1 million waste bins and distribute to 1 million households nationwide to increase its clientele base in the private sector and it is expected to generate additional revenue of USD 50 million monthly to the Company.</p> <p>The additional 1 million waste bins is expected to serve as incentive for the households to sign on to Zoomlion Waste Management Services and ultimately lead to an improvement in the city and peri-urban areas of Ghana.</p>
Business Case	<p>The objective of this Project is to provide households in Ghana with free waste bins as a much-needed intervention in waste and sanitation management, to help eliminated public health challenges.</p> <p>Annually, Ghana is often hit by cholera outbreaks, with Greater Accra, Central, Eastern, Northern and the Upper West Region experiencing the worse hit. Filth and unsanitary conditions have been major fuels for cholera outbreak nationwide.</p> <p>According to the Ghana Health Service, the reported infected cases were about 5,308 in 2014.</p> <p>This Project also seeks to change the attitude of people to reverse the alarming statistic of five (5) out of 10 households in Accra dumping refuse in gutters.</p>



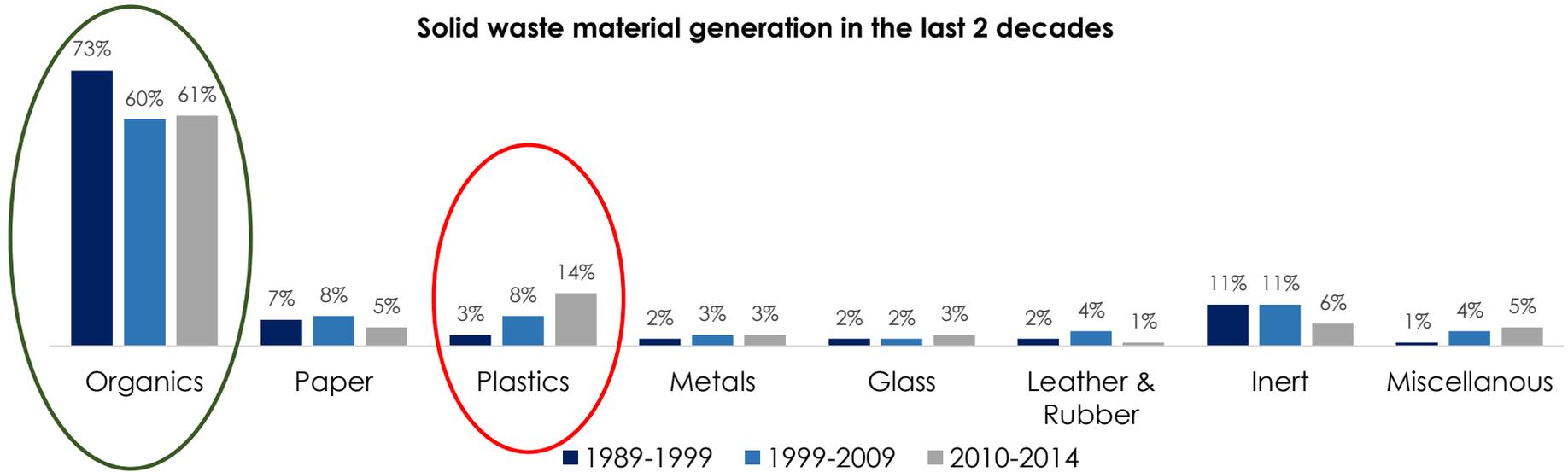
2.0 The Business Case

The current waste management situation & need assessment



Waste Management in Ghana: Analysing the prevailing situation and the effectiveness of policies

Solid waste material generation in the last 2 decades



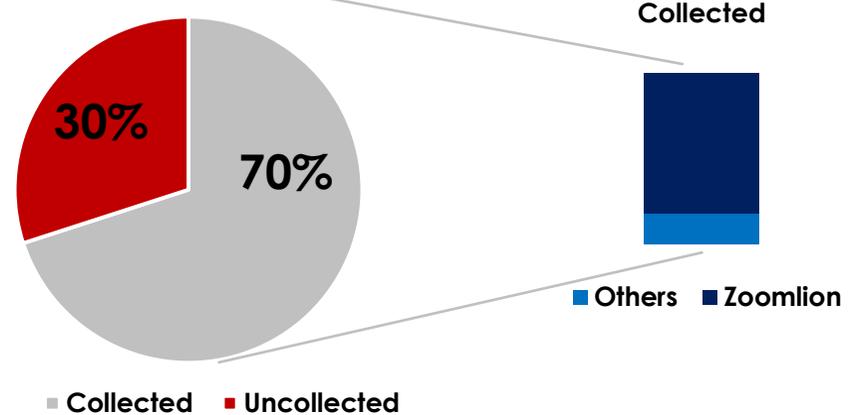
4.0m MT

Annual Waste generated in Ghana

80%

Market Share of Total Waste Collected

Total Waste Generated in Ghana (4 million metric tonnes)



Zoomlion covers all Metropolitan Municipal and District Assemblies in Ghana except Kumasi Metropolitan Assembly and 5 engineered 5 landfill sites including Tema, Kumasi, Tamale, New Ebirem and Takoradi.

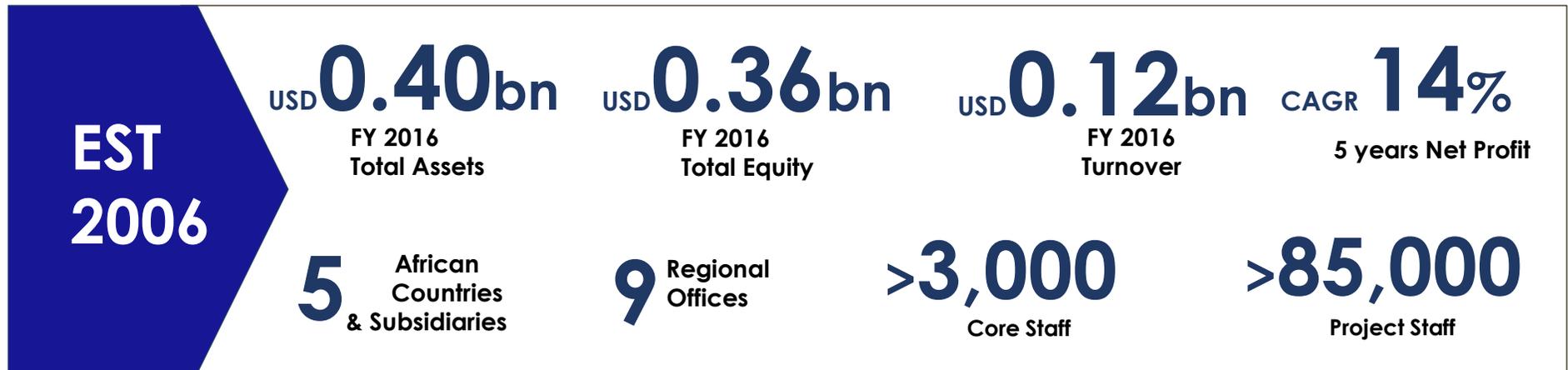


3.0

Corporate Profile

Corporate and Operational information on Zoomlion Ghana Limited

Zoomlion Ghana Limited is a leading waste and sanitation management company in Ghana and Africa



Zoomlion Ghana Limited is a fully owned Ghanaian company that focuses on delivering quality waste management solutions to environmental challenges.

The company was formed under the Company's Act in January 2006 and operates in Togo, Angola, Zambia, Equatorial Guinea and Liberia with negotiations far advanced for the company to start operations in Sierra Leone, Southern Sudan.

About a decade after its inception, the company has positioned itself as Ghana's largest waste management company.

Zoomlion is committed to building long lasting relationships with customers, government, local authorities, the community and competitors.

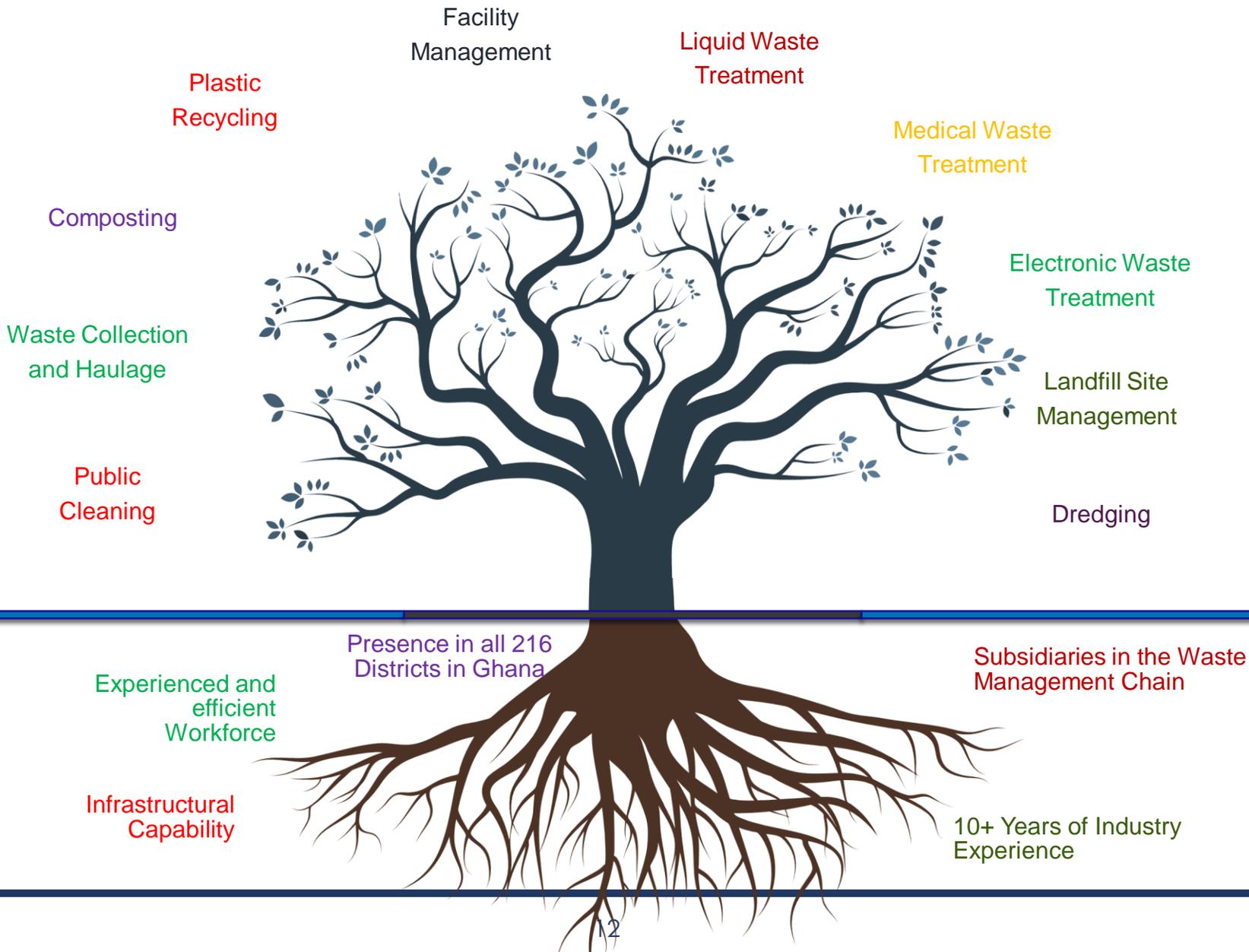
Mission:

To be at the forefront of the environmental sanitation services industry, by the introduction and utilization of simple but modern technologies and methods of waste management at affordable and competitive rate.

Vision:

Champion of clean, green and healthy communities.

Services & Strengths



Review of business history

-
- 2005** Zoomlion Ghana Limited was founded in January 2006
-
- 2008** Provided Janitorial and environmental sanitation during the 2008 African Cup of Nations in Ghana
-
- 2009** Zoomlion Ghana Limited established a partnership with Ital Construct Angola Limitada in 2009 to form Zoomlion Angola Limitada, to undertake cleaning at the 11th of November stadium in Luanda during CAN 2010 and thereafter.
-
- 2010** Zoomlion Ghana Limited partnered with Environmental Innovations (EI) to form Zoomlion Zambia Limited in 2010. Operations are centralized in Lusaka.
-
- 2010** Zoomlion Togo SARL, wholly-owned by Zoomlion Ghana Limited was established in 2010 and won a three-year contract for the provision of services in the city of Lome which ended in January 2013.
-
- 2010** Zoomlion Ghana Limited and Conex came into partnership in 2010 to form Zoomlion Liberia Incorporated to bid for the construction of landfill cells in Whein Town financed by World Bank. Zoomlion Liberia incorporated also bided for a waste management contract to provide services in Monrovia.
-
- 2011** Zoomlion Angola Limitada in November 2011 signed a contract with Empresa de Limpeza e saneamento de Angola(Elisal) to clean the city of Cazenga.
-
- 2011** Zoomlion Ghana Limited entered into partnership with EGBL(Equatorial Guinea Business Links) in 2011 to form EGBL/ZL to undertake cleaning at stadia in Bata and Malabo during the African Cup of Nations 2012.EGBL/ZL through its ornamental plants nursery also provide landscaping and beautification services to interested horticulturalists, individuals and corporate entities that are interested in the service
-
-

Domestic and International Projects & Clients

Zoomlion's clientele base spans across western & southern countries including Ghana. Domestically, the company boasts of national contracts, major hotels, banks and universities. ZoomLion was the major waste manager during 2010's Cup of African Nations in Angola.



Ghana's top waste management and sanitation company



6 African countries including Togo, Guinea, Liberia, Angola, Sierra Leone and Zambia.



Major **Hotels, Universities and Hospitals** in Ghana.



Over **90%** of contracts with these institutions are still **On-Going**



~ Caring for you



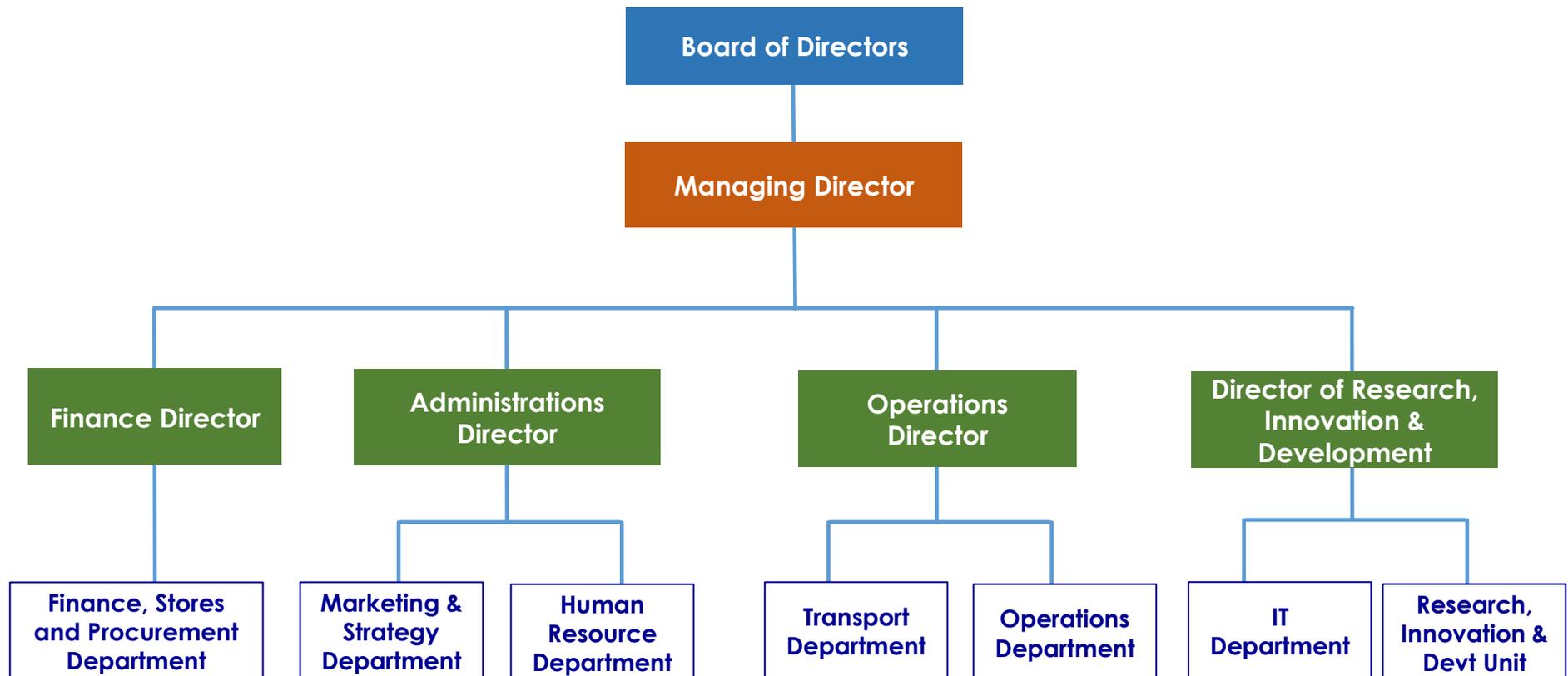
Tema Metropolitan Assembly
Unity, Productivity & Progress
A Planned City in the Centre of the World



Kumasi Metropolitan Assembly
Working for a cleaner city

Organogram

Currently, Zoomlion has key staff of 3,000 and contract staff of over 85,000. The Managing Director has the overall supervisory role of all activities carried out by Zoomlion. The Managing Director is assisted by the Director of Administration, Finance Director and the Director of Research, Innovation & Development. This administrative headship is further supported by Operations Department, Finance, Stores and Procurement Department, Information Technology Department, Marketing and Strategy Department, Research Innovation and Development Department and Human Resource Department.



Key Management

MRS. FLORENCE LARBI **- Managing Director**

Mrs. Florence Larbi has been MD since 2011. Prior to this, she was the General Manager and HRM and has over 20 years working experience, 16 of which are in the area of Human Resources and Corporate Governance. She had her education at the University of Cape Coast (1991), University of Ghana Business School (2000) and Gamey & Gamey Academy of Mediation, affiliated to Pulse Institute of Calgary, Canada and Mediation Training Institute International of Kansas City, USA (2012). She also oversees operations in Togo, Angola, Liberia, Zambia and Equatorial Guinea.

MR. EMMANUEL **OTCHERE OKOMENG** **-Director of Administration**

Mr. Emmanuel Otchere Okomeng, joined Zoomlion with over 25 years experience in both the private and the public sectors. He has worked in former Bank for Housing and Construction as Projects Officer, Ghana Investment Promotion Center (Finance and Administration Director), Amassa Group of Companies (Finance and Administration Officer), MMRS Ogilvy (Compliance and Corporate Affairs Director) and Ghana Association of Consultants as the Chief Executive Officer. Mr. Okomeng holds a Master's degree in Finance from the University of Stirling, Scotland and BSc. Administration, Accounting option from the University of Ghana, Legon.

MR. JONATHAN **GANYAGLO –** **Director of Finance**

Mr Jonathan Ganyaglo is a seasoned banker and Group Head for Investment and Treasury at the Zoomlion Group of Companies. Mr Ganyaglo joins the Group from ARB Apex Bank where he managed the Treasury of the Bank for many years and AMAL Bank, now BANK of Africa. He holds a BSc Administration in Accounting and MBA Finance from the University of Ghana Business School. He is an Associate of Chartered Institute of Management Accountants (CIMA, UK) and Chartered Management Global Accountants (CGMA, UK).

Key Management

**DR. GEORGE NANA
KWESI ROCKSON -
Research, Innovation
And Development
Director**

Dr. George N.K Rockson, a Research and Business Development strategist in the Environment and Waste Management sector, has about 10 years of experience in environmental research, treatment and management technologies. He currently works with and advises companies such as Zoomlion, Accra Compost and Recycling Plant Ltd, Universal Plastic Products and Recycling Ltd, ZoomPak Transfer station and Medical Waste Treatment Center. He stirred the registration of the first CDM Sorting and Composting project in Ghana and has working experience with DANIDA, GIZ and UNDP. He is an adjunct lecturer at the KNUST-African Institute of Sanitation and Waste Management and has a rich background in chemical/environmental engineering, industrial project preparation & evaluation, agro-processing and climate change. Dr. Rockson is an ISO 14001 Lead auditor Certified and has experience in corporate compliance management. He is a member of the National Climate Change Mitigation Committee; and a member of a few international associations including the International Solid Waste Association (ISWA) and the American Society of Agricultural and Biological Engineers (ASABE).

**EMMA AKYEA-BOAKYE
- Operations Manager**

Emma has rich experience in Environmental Service operations through the supervision and management of many operational responsibilities and projects. She brings to the company a wealth of experience in Environmental Management and Policy, Mathematics Education and Psychology having worked with several units of The Ghana Education Service. She was also instrumental in the setting up of Zoomlion Domestic Waste Services Ltd, a subsidiary of the company. Emma has a degree in Mathematics Education from the University of Education, Winneba and an MA in Environmental Management and Policy (EMP); (2007) from the University of Cape Coast, Institute of Development Studies. She is also a Member of the Chartered Institute of Marketing, Ghana (CIMG) and a Student Member of the Chartered Institute of Marketing (CIM, UK).

Logistical Support

Zoomlion Ghana Limited has plants & equipment to carry out the "1 Million Bin Project"



Financial Summary

All amounts are in US\$ unless otherwise stated

REVENUE

2016 : 0.12 Billion

2015 : 0.11 Billion

Growth: -1.9%

EQUITY

2016 : 0.36 Billion

2015 : 0.31 Billion

ROE: 14.6%

CASH & BANK
2016 : 3.64 million
 2015 : 7.34 million

OPERATING INCOME

2016 : 0.07 Billion

2015 : 0.07 Billion

Operating Margin: 62.0%



TOTAL ASSETS

2016 : 0.40 Billion

2015 : 0.33 Billion

ROA: 13.1%

NET PROFIT

2016 : 0.05 Billion

2015 : 0.06 Billion

Net Margin: 45.7%

INCOME SURPLUS
2016 : 0.36 Billion
 2015 : 0.31 Billion

TOTAL LIABILITIES

2016 : 0.04 Billion

2015 : 0.02 Billion

Gearing: 11.1%



4.0

Project Overview Highlights on the Transaction

Project Overview

- Zoomlion Ghana intends to procure 1 million waste bins and distribute to 1 million households to increase its clientele base in the private sector and it is expected to generate additional revenue to the Company.
- The additional 1 million waste bins is expected to serve as incentive for the households to sign on to Zoomlion private domestic waste management services and ultimately lead to an improvement in the waste collection and disposal in the cities and peri-urban areas of Ghana.
- The distribution of the waste bins is expected to be completed in 24 months (2 years). To achieve this feat:
 - Zoomlion will leverage on its network with subsidiary companies (NawaBin, Domestic Waste and Alliance Waste);
 - Embark on a public awareness/ sensitization to drum the justification of the project to the citizenry. This will include but not limited to radio and television advertisements, roadshows etc.;
 - Zoomlion will continue to work with the Municipal, Metropolitan and District Assemblies to aid in the sensitization and distribution of the waste bins;



Project Overview

- The waste bins to be procured will be implanted by electronic chips that will help track the whereabouts of the bins. GPR systems will track the exact location of households to harness the process.
- To improve cash flow, Zoomlion intends to use software to ensure prepayment of services, where necessary. This will include mobile money, POS devices etc.

INNOVATIVE APPROACH



1
Manual
Tricycle



2
Motorized
Tricycle



3
Borla
Taxi



4
Fleet of Skip and
Compactor Trucks

Market Size

Region	Number of Houses (2010)	Urban share of housing stock (2017)	Potential market (2017)	%
Greater Accra	474,621	230,616	184,492	14.0%
Ashanti	574,066	278,935	223,148	16.9%
Central	346,699	168,459	134,767	10.2%
Western	380,104	184,690	147,752	11.2%
Eastern	431,697	209,759	167,807	12.7%
Volta	399,953	194,335	155,468	11.8%
Brong Ahafo	331,967	161,301	129,041	9.8%
Northern	257,311	125,026	100,021	7.6%
Upper Regions	196,327	95,394	76,315	5.8%
Total	3,392,745	1,648,515	1,318,812	100%

■ The total number of households according to the 2010 Population Census is 3.39 million. Out of this, 1.96 million houses are in the rural centers. The growth in urban houses is projected to grow at 2% annually. This leads to 1.65 million in 2017.

■ Based on our research, about 20% of urban households either have waste bins, are outside Zoomlion zones or prefer not to use waste bins for varying reasons. Thus the potential market for this Project as at 2017 is 1.32 million households.

	REGIONS	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
POTENTIAL MARKET SIZE	Greater Accra	184	188	192	196	200	204	208	212	216	220
	Ashanti	223	228	232	237	242	246	251	256	261	267
	Central	135	137	140	143	146	149	152	155	158	161
	Western	148	151	154	157	160	163	166	170	173	177
	Eastern	168	171	175	178	182	185	189	193	197	201
	Volta	155	159	162	165	168	172	175	179	182	186
	Brong Ahafo	129	132	134	137	140	142	145	148	151	154
	Northern	100	102	104	106	108	110	113	115	117	120
	Upper Regions	76	78	79	81	83	84	86	88	89	91
	Total		1,319	1,345	1,372	1,400	1,428	1,456	1,485	1,515	1,545

■ We have projected, for ten (10) years, the annual potential market based on an annual growth rate of 2%.

■ All amounts are in thousands.

Source: Union Capital. *Estimation* of potential market size based on 2010 population census. All amounts are in 000's

Success Variables

PRESENCE IN ALL 216 DISTRICTS IN GHANA

Zoomlion has offices in all 216 Districts across the length and breath of Ghana

INFRASTRUCTURAL CAPABILITY

We have a strong infrastructural base in terms of equipment and facilities

MARKET OPPORTUNITY

There Is currently a market of 1.3 million households in the urban areas

10+ YEARS OF INDUSTRY EXPERIENCE

We have extensive experience in our various sectors of operation

SUBSIDIARIES IN THE WASTE MANAGEMENT CHAIN

Zoomlion has an subsidiaries companies in the waste management chain to leverage their outlets for distribution

Proposed Transaction Structure



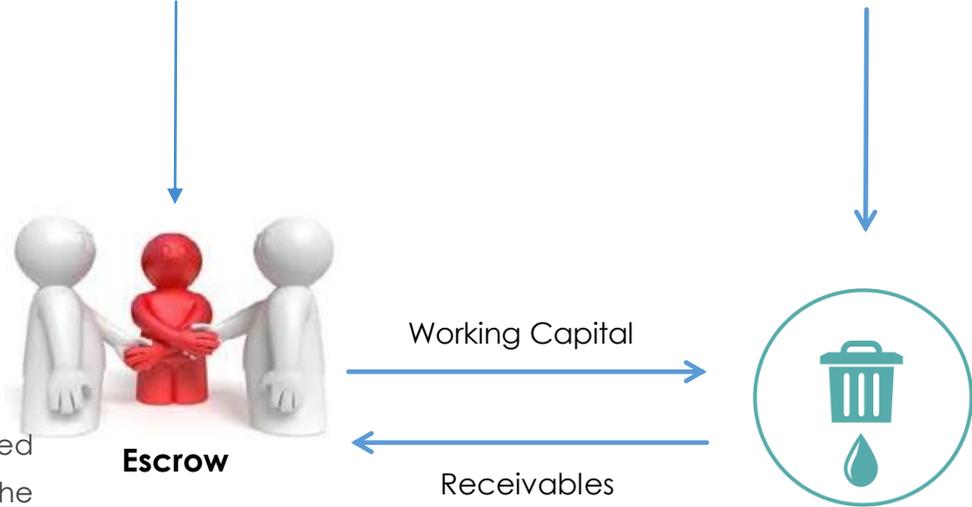
Credit Provider

Local Bank

Credit Recipient

- The Lender lends to Zoomlion through a local bank
- Zoomlion purchases the 1 million bins and funds ancillary expenses
- Receivables from the Project is ring-fenced and escrowed into an account with the Local Bank. The Lender will have lien over the escrow account.
- The escrow account will service all debt service
- The Escrow account also funds the working capital needs of the Project.

Debt Service Repayments



Project "1 Million Waste bins"

Logistics

Currently, Zoomlion has a fleet of vehicles that it uses in its operations. These trucks are used for picking up waste and then moving it to landfills or other places where waste materials are managed and treated. The current fleet deployed to effectively run the waste management operations include:

Vehicle	Quantity
Saloon Car	60
Pick-Ups	> 300
Motor Cycles	> 1,000
Cesspit Emptiers	> 50
Water Tankers	
Road Washers	> 10
Road Sweepers	> 10
Ship Trucks	> 550
Roll On/Off Trucks	> 400
Tipper Trucks	> 40
Skip Containers	> 10,000
Compaction Rear-Loading Tr	80
Tricycles	> 15,000
Roll On/Off Containers	> 5,000
Plastic Containers	> 150,000
Cesspit Emptier	> 50
Road Washers	> 10
Road Sweepers	> 10

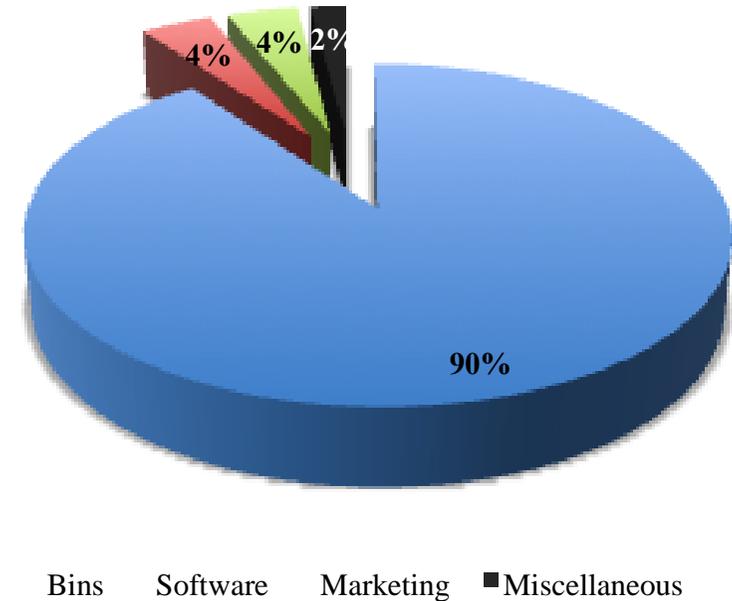


5.0 Investment Thesis



Investment Thesis: Funding Need

- The Project estimates the total financing need of US\$ 40 million. The funds will be used to fund the purchase of waste bins, marketing, software and miscellaneous expenses.
- The Project presents a unique investment opportunity for debt. The project requires US\$40 million in debt; preferred all-in cost of debt of 6%. The long term debt will be secured against the Project cash flows.
- Post-commissioning, revenues are expected to accrue quickly. The Project's primary operational objective will be to manage its operating costs.
- Hence, subject to the appropriate debt service moratorium, the Project shall have a high debt capacity because it has the prospect to earn positive operating profits and cash flows early in its life cycle.



Investment Thesis: Cash Flow Summary

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Turnover	3.08	25.10	46.98	60.79	57.35	52.24	57.20	54.48	50.91	56.99
O&M	(1.54)	(12.55)	(23.49)	(30.39)	(28.67)	(26.12)	(28.60)	(27.24)	(25.46)	(28.50)
EBITDA	1.54	12.55	23.49	30.39	28.67	26.12	28.60	27.24	25.46	28.50
Depreciation	(5.00)	(15.00)	(15.00)	(5.00)	-	-	-	-	-	-
EBIT	(3.46)	(2.45)	8.49	25.39	28.67	26.12	28.60	27.24	25.46	28.50
Finance Cost	(1.85)	(2.47)	(1.91)	(1.27)	(0.62)	(0.07)	-	-	-	-
EBT	(5.31)	(4.92)	6.58	24.12	28.06	26.05	28.60	27.24	25.46	28.50
Tax	-	-	(1.65)	(6.03)	(7.01)	(6.51)	(7.15)	(6.81)	(6.36)	(7.12)
EAT	(5.31)	(4.92)	4.94	18.09	21.04	19.54	21.45	20.43	19.09	21.37
EBIT*(1-tax)	(2.60)	(1.83)	6.37	19.04	21.51	19.59	21.45	20.43	19.09	21.37
Capex	(40.00)	-	-	-	-	-	-	-	-	-
Depreciation	5.00	15.00	15.00	5.00	-	-	-	-	-	-
Changes in Receivables	(0.41)	(1.96)	(1.64)	(0.99)	0.28	0.42	(0.41)	0.22	0.29	(0.50)
Changes in Payables	0.13	0.91	0.90	0.57	(0.14)	(0.21)	0.20	(0.11)	(0.15)	0.25
Free Cash Flows	(37.88)	12.11	20.63	23.63	21.65	19.80	21.25	20.54	19.24	21.12
Operating Cashflow	1.25	11.50	22.75	29.97	28.82	26.33	28.40	27.35	25.60	28.25
Total Debt Service	(0.40)	(7.62)	(12.54)	(11.89)	(11.24)	(4.49)	-	-	-	-
Surplus over debt service	0.85	3.88	10.22	18.08	17.57	21.84	28.40	27.35	25.60	28.25
DSCR	1.30	3.13	1.51	1.81	2.52	2.56	5.86			

Investment Thesis: Assumptions

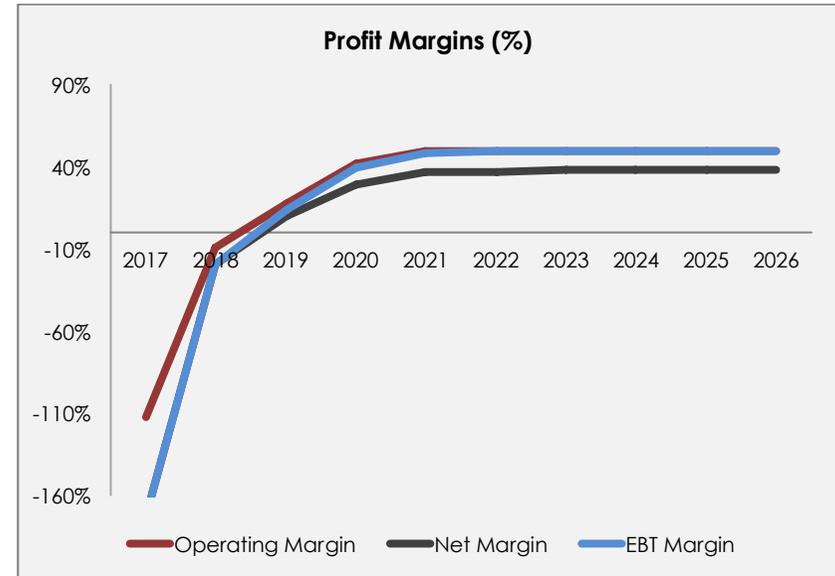
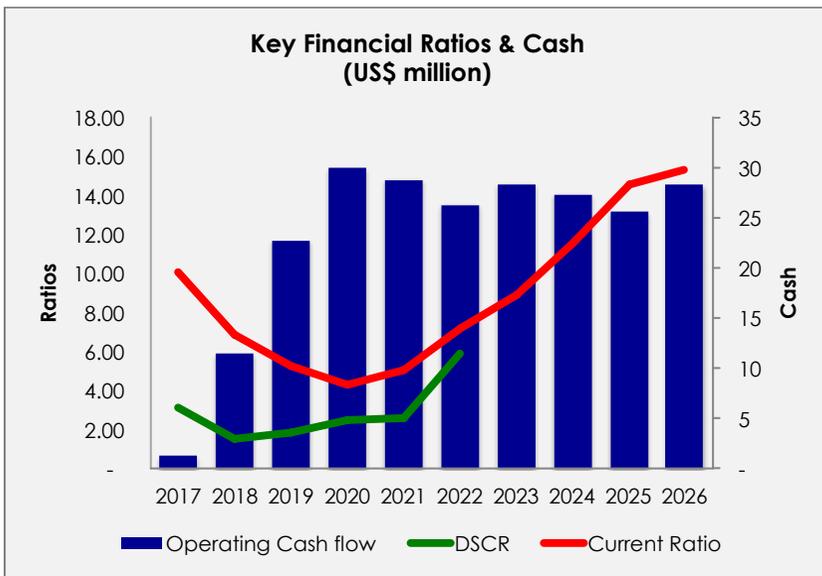
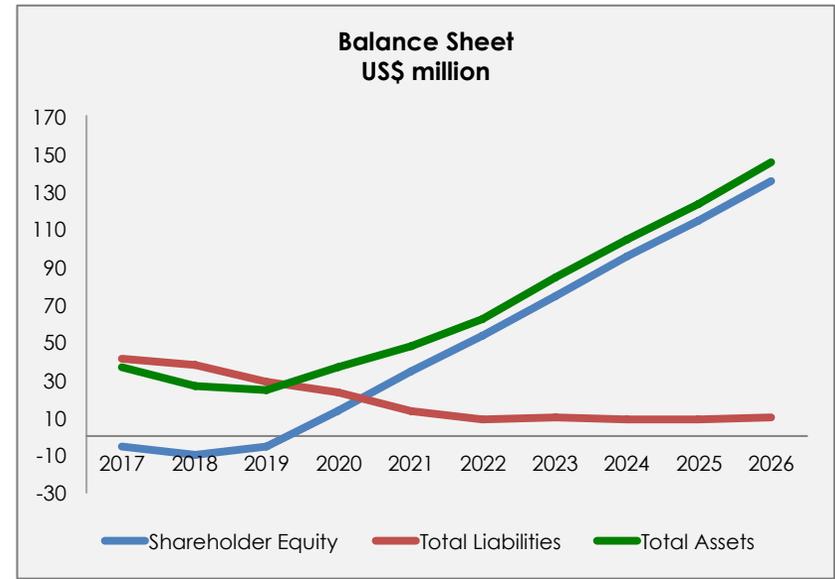
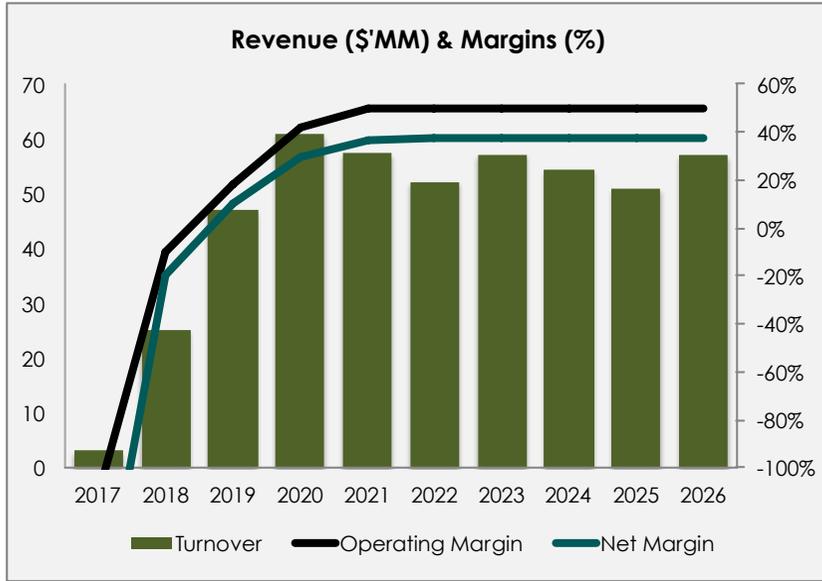
Narration	Unit	Narration	Unit
Corporate tax rate	25.0%	Rural share of housing stock (2010)	57.7%
Project Start Date	01 Jul-17	Growth rate of urban housing stock (p.a)	2.0%
Exchange Rate	4.50	Potential urban mkt (as % of urban housing stock)	80.0%
Number of Bins	1,000,000	Debtors (30-day terms)	8.2%
All-in Cost of Bin (US\$)	40.00	Creditors (21-day, 14-day or 30-day terms)	8.2%
Debt Raise (US\$)	40,000,000	Bin Life Span (in years)	2
Cost of debt	6.0%	Preferred Debt Service Coverage Ratio (DSCR)	1.30
Date of Disbursement	01 Jun-17	Collection fees	23
First principal repayment (moratorium in mths)	12	01 Jun-18	Registration fees
Maturity Date (tenor in yrs)	5	31 May-22	Collection fee increment per 3 years annum
Operating cost (% of revenue)	50.0%		20%

Narration	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Exchange Rate (US\$:GHS)	4.50	4.69	4.90	5.19	5.51	5.73	5.93	6.22	6.66	7.14
Collection Fees (GHS)	23.08	23.08	23.08	27.70	27.70	27.70	33.24	33.24	33.24	39.88
Clients as a % of Bins	80%	85%	95%	95%	95%	90%	85%	85%	85%	85%
Registration Fees (GHS)	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00

Investment Thesis: Debt Schedule

Narration			Detail		2017	2018	2019	2020	2021	2022	TOTAL
Lender:	Bank	Opening Balance:	-	41.45	36.30	25.68	15.05	4.43	-	-	-
Principal amount borrowed:	40	Drawdown	40.00	-	-	-	-	-	-	-	40.00
Days in the year (for calc of interest):	360	Principal Outstanding	40.00	41.45	36.30	25.68	15.05	4.43	40.00	40.00	40.00
Indicative interest rate:	6.00%	Interest Accrued	1.45	2.47	1.91	1.27	0.62	0.07	7.79	7.79	7.79
Facility Arrangement Fee	1.00%	Other Payments	0.40	-	-	-	-	-	0.40	0.40	0.40
Financial close and disbursement:	01 Jun 17	Total Outstanding	41.85	43.92	38.22	26.95	15.67	4.49	48.19	48.19	48.19
First principal repayment:	01 Jun 18	Principal repayments	-	(6.20)	(10.63)	(10.63)	(10.63)	(4.43)	(42.50)	(42.50)	(42.50)
Maturity date:	31 May 22	Interest paid	-	(1.42)	(1.91)	(1.27)	(0.62)	(0.07)	(5.28)	(5.28)	(5.28)
Term (months):	60	Upfront fees	(0.40)	-	-	-	-	-	(0.40)	(0.40)	(0.40)
Principal + Capitalised Interest	42.50	Total Repayments	(0.40)	(7.62)	(12.54)	(11.89)	(11.24)	(4.49)	(48.19)	(48.19)	(48.19)
Capitalised Interest	2.50	Closing Balance	41.45	36.30	25.68	15.05	4.43	-	-	-	-

Investment Thesis: Projections



Investment Thesis: Projections

- The Project is expected to commission its first distribution in Q4 of 2017. The debt is estimated to be drawn down in June 2017. Each waste bin is projected to have a life span of 24 months even though, practically, the life can be extended significantly beyond 2 years. All costs stated above are capitalised and bins are amortized only when they have been distributed.
- Revenues are based on bins distributed, clients registered and collection fee of GHS 23 (US\$ 5.13 equivalent). Revenues are impacted by the market for waste bins and the projected distributions in each year. It is expected that the bins will be distributed by Q4 2018.
- Revenues are projected to rise from US\$ 3.08 million in 2017 to US\$ 57.20 million in 2023. It dips to US\$ 54.48 million in 2024 and rises to US\$ 56.99 million in 2026. The dip in revenue is as a result of estimated cedi depreciation and a conservation assumption of reductions in clientele base. In Cedi terms, however, revenue rises steadily and plateau around GHS 340 million in 2025.
- Operating costs (excluding depreciation) are conservatively high at 50% and these are driven by wages and salaries, repairs and maintenance etc.
- The Project is profitable after all bins have been distributed from 2019. Net profit is US\$ 4.94 million in 2019 and rises to US\$ 21.04 million in 2021. It falls and then rises steadily to US\$ 21.37 million in the tenth year of operation.
- At this time, no detailed assumptions have been made for other fixed assets.

Investment Thesis: Projections

- The Project is expected to maintain healthy margins over the life of the Project. The EBIT margin declines from (112%) in 2017 to (10%) in 2018 and to 18% in the third year of operations and holds steady at 50% thereafter. The net margin indicates a loss of (173%) mainly driven by finance cost and the initiation of depreciation charges. The net margin improves to (20%) in the first full year of operation, peaking at 38% in 2023.
- Project “1 Million Waste Bins” is projected to generate strong cash flows over the 10-year projected period. The Debt Service Coverage Ratio (DSCR) is defined as cash flow operations divided by total debt service. The DSCR is 3.13 and falls to 1.51 in 2018. It increases to 1.81, 2.52 and 2.56 in the subsequent years. The dip is as a result of capitalised interest in the first 12 months.
- The liquidity ratio is not projected to drop below 4x once the Project commences. The Project will be able to meet its short term obligations in each period at the projected revenue and profitability estimates.
- NPV is US\$ 106.49 per waste bin or US\$ 106.49 million for the Project at WACC of 4.5%.

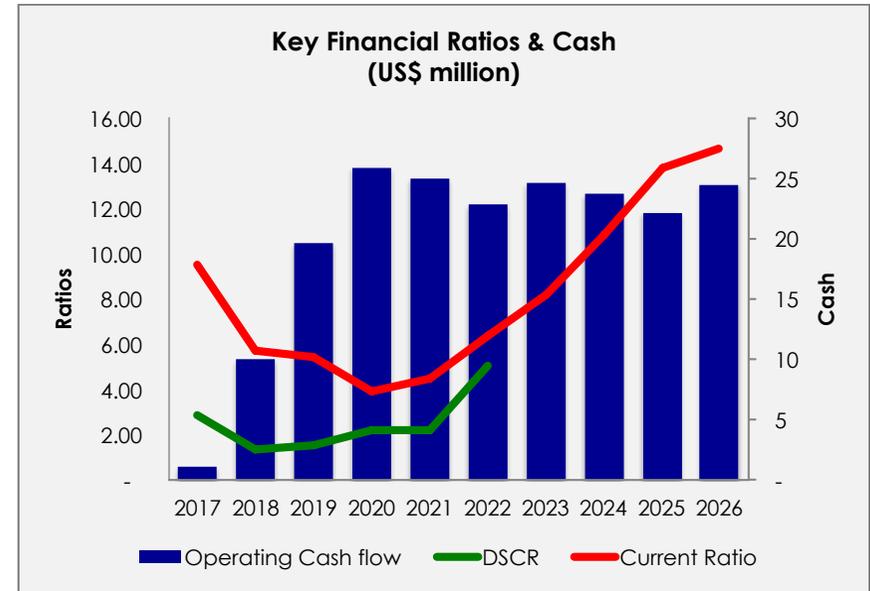
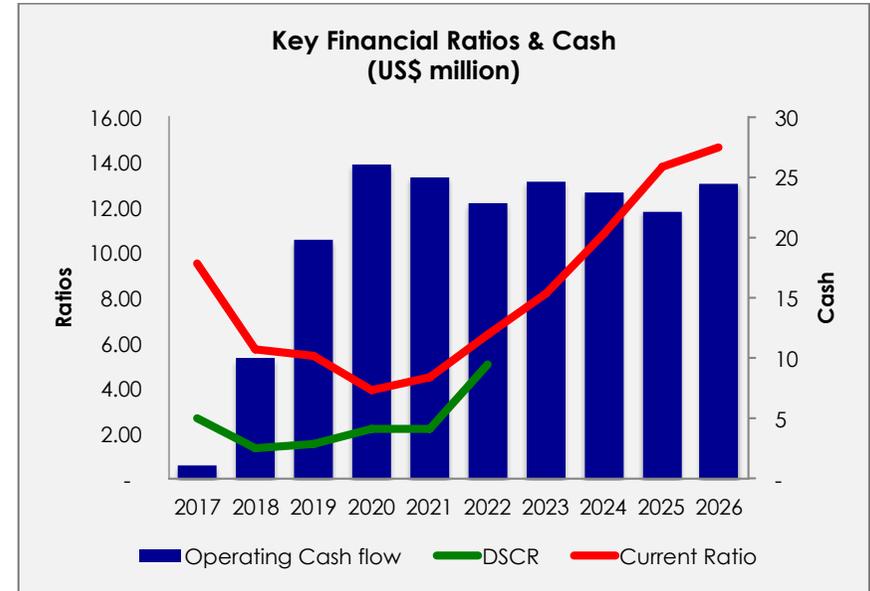
Investment Thesis: Other Scenarios

Collection Fee is GHS 20,
i.e.. 13% decline

- Revenues are projected to rise from GHS 2.67 million in 2017 to US\$ 49.39 million in 2026.
- The DSCR is 2.66 in 2017, 1.31 in 2018 and is not projected to fall below 1.3x over the 10-year period.
- Project NPV is US\$ 88.19 per waste bin

Registration Fee is GHS 20
ie. a 42% decline

- The DSCR is 2.83 in 2017, 1.31 in 2018 and is not projected to fall below 1.3x over the 10-year period.
- Liquidity, evidenced by the current ratio is not expected to fall below 3.8x.
- Project NPV is US\$ 88 per waste bin



6.0 Socio-Economic Impact of the Project



Socio-Economic Impact

- This Project comes in the wake of improper waste management systems that have contributed to perennial flooding and cholera outbreak that directly affect citizens leading to poor level of production in the employment sector. Free waste bins will limit the tonnage of waste that finds way into our drainage systems.
- Training will be given to equip personnel involved in the Project with the requisite skills for logistic distribution and data gathering to facilitate the entire process. This ultimately is a way of contributing to developmental growth and simple sanitation efforts in the country. These skills will also be transferable for future waste management projects and management.
- The operations of this Project will generate opportunities for economic transactions in this economy. It is expected to directly create about 500 new jobs.
- The creation of clean surroundings will likely lead to an increase in local property values and higher rents, which may spur new developments.



7.0 Risk & Mitigation Measures

Risk and Mitigation Measures

- The following risks have been identified as critical for the Project. These risk factors are not exhaustive and that the business environment is dynamic and new risks must be identified and mitigation measures put in place.

Risk Type	Description	Impact	Likelihood of Occurrence	Mitigation
Exchange Rate Risk	This may result due to fluctuations in the value of the cedi to major trading currencies.	Revenues will be earned in the Ghanaian cedi while loan obligation will be in the US Dollars creating a mismatch. The depreciation of the local currency is likely to result in exchange losses.		A percentage of all receivables will be converted to USD and escrowed. The collection fees will be reviewed upwards at least every three years to ensure that the management fee accounts for depreciation in the local currency.
Default Risk	This is the inability of Zoomlion to meet its debt obligations.	The company's asset pledged as security will be at risk in the event of non-payment.		Zoomlion will undertake insurance cover for the loan facility to mitigate any risk of default
Interest Rate Risk	The interest rate for the loan facility may be linked to the LIBOR rate and will be subject to fluctuations	Increase in interest rate will increase the debt obligation which may also increase the risk of default.		Zoomlion will hedge against increases in the interest rate.

 High  Low

Risk and Mitigation Measures

- The following risks have been identified as critical for the Project. These risk factors are not exhaustive and that the business environment is dynamic and new risks must be identified and mitigation measures put in place.

Risk Type	Description	Impact	Likelihood of Occurrence	Mitigation
Performance Risk	These include the risks that the completed project, when complete, fails to perform as intended or fails to meet business requirements that justified it	The company's asset pledged as security will be at risk in the event of non-payment.		Zoomlion will ensure that all systems and procedures are documented in sufficient detail to ensure that there is very little interruptions in the continuity of the Project.
Diversionary Risk	This is the likelihood that the Zoomlion will misapply loan proceeds for unapproved purposes or divert cash to other causes.	The company's asset pledged as security will be at risk in the event of non-payment.		Zoomlion will sign an undertaking to make all payments to the escrow account.



High



Low

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