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Insight

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Report authors:

Alexander Burtenshaw, Joel Moktar, Anthony Mahira, and Jack Mwangi of Open Capital

CDC lead:

Kyle Alexander
kalexander@cdcgroupp.com



What's the impact of investing in warehousing in Kenya?

Practical thinking on investing for development

Insight is a series of practical and digestible lessons on the issues of private sector investment and development. The series is based on our experiences, knowledge and research and is aimed at investors, businesses, development professionals, and anyone with an interest in private sector development.

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Foreword

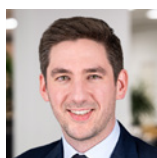
This insight report builds-out the development impact evidence base of the construction and real estate sector (CRE) in Africa and South Asia. At CDC, we want to encourage more investors to focus on the sector given its importance in determining urban form in cities and its potential to lock-in economic, social and environmental impacts for decades. This study sits alongside our Construction and Real Estate (CRE) Impact Framework and supports more impactful investment strategies by using evidence to map the development impacts of the CRE sector on people and the planet.

Grade-A warehousing is a powerful economic enabler: it creates the conditions for businesses to establish highly efficient supply chains and to use them for competitive advantage. As these businesses grow, they create economic opportunities by creating jobs (directly and indirectly), generating income uplift for suppliers and sales agents, and by reaching new customers and giving them access to a wider product offering. However, this type of high-quality warehousing is often absent or undersupplied in developing markets, which acts as a constraint to economic development.

Africa Logistics Properties (ALP) is a specialist integrated property investment and development company focused on Grade-A warehousing. Five years ago, ALP raised \$60 million from a consortium of investors, including CDC, and used that capital to build 55,000 square metres (sqm) of Grade-A warehousing across two sites in Nairobi. Until ALP entered the market, international standard warehousing in Kenya did not exist, and small Grade-C sheds and 'godowns' dominated.

This study uses the United Nations Sustainable Development Goals (SDGs) to assess ALP's economic opportunity (SDG 8) and productivity (SDG 9) development impacts, both of which were fundamental to our investment case. The study focuses on who this type of investment ultimately reaches, specifically ALP's tenant's employees, suppliers, and customers. ALP's energy efficiency impact (SDG 13) was an additional important component of our investment case and a summary of this is available on our website.

This study was undertaken in partnership with Open Capital Advisors. Consultations were organised by the Open Capital team with ALP's management and all six ALP tenants provided the basis for the report's findings. Case boxes on two ALP tenants, Twiga and Copia, put the findings in context and provide a more complete picture.



Kyle Alexander

*Impact Executive, Construction & Real Estate
CDC Group plc*

Contents

Foreword	2
Executive summary	3
1 Context	5
1.1. Warehousing in Kenya	5
2 Tenant business impact	8
2.1. Inventory management efficiency	9
2.2. Access to reliable utilities	11
2.3. Improved access to markets and supply chain partners	11
2.4. Reduced losses to theft	11
2.5. Reduced losses to physical damage	11
3 Economic enabling impact	13
3.1. Employees	14
3.2. Suppliers	14
3.3. Sales agents	14
3.4. End consumers	14
4 Market development impact	16
4.1. Skills and technology transfer	17
4.2. Enhancing investment attractiveness of Nairobi to local and international capital	17
4.3. Entry of new business models enabled by high-quality warehousing	17
4.4. Improved competitive landscape	18
5 Conclusion	19
6 Recommendations	20

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For questions please contact
Kyle Alexander
kalexander@cdcgroup.com

Executive summary

ALP is a specialist integrated property investment and development company focused on Grade-A warehousing. Incorporated in 2016, ALP set out to address the rapidly growing need for high quality warehousing facilities across East Africa and raised \$60 million in 2017 from investors including CDC, the International Finance Corporation, Mbuyu Capital, Maris, and DOB Equity.¹

ALP developed Kenya's first Grade-A warehouses to meet demand from local and international companies, in a market dominated by low-quality, small-size 'godown' warehouses located in congested industrial areas.² Launched in 2017, ALP North is EDGE-certified and offers 47,000 sqm of space to large, local and international tenants with a minimum space let of 2,000 sqm. Launched in 2020 ALP West Phase I targets small and medium enterprises (SMEs) and offers 8,000 sqm of space with a minimum space let of 500 sqm.

ALP tenants attribute increased operational efficiency to the use of Grade-A warehousing facilities, resulting in improved margins and ability to scale. Tenants have benefitted from 45-60 per cent storage cost savings on a per pallet basis, 63 per cent reduction in turnaround times, reliable utilities, better access to markets, and inventory losses to both theft and damage reduced to near zero. These benefits have enabled tenants to increase their revenues and grow business margins.

Improved tenant productivity has contributed to positive direct and indirect economic opportunity and livelihood impacts. ALP's tenants have created high-quality, skilled jobs, and their business operations have contributed to Kenya's economic growth. Indirectly, the suppliers and customers of ALP's tenants have also benefitted through increased earnings and better access to goods. ALP has also contributed to the development of the Kenyan warehousing market, influencing a new generation of warehouse developers to invest in modern facilities. This has included the transfer of skills and technology to local market actors and catalysing local production of quality warehousing equipment which were previously unavailable in Kenya. These impacts are summarised in Table 1.

This study validates CDC's impact case for investing in ALP. The findings are likely to apply in comparable contexts, particularly in markets where Grade-A warehousing is undersupplied and novel or significantly additional. Potential ways of enhancing the development impact warehousing are also considered, such as educating and training tenants on warehouse management best practices. The impact profile of ALP's tenants varies considerably, suggesting further research on tenant-specific needs may identify further opportunities to enhance impact. It is likely that the early adopters of Grade-A warehousing are tenants with atypical characteristics, so gaining a better understanding of this profile may provide useful insights.



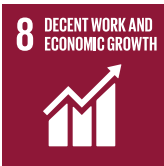
ALP developed Kenya's first Grade-A warehouses to meet demand from local and international companies, in a market dominated by low-quality, small-size 'godown' warehouses located in congested industrial areas.



Tenants have benefitted from 45-60 per cent storage cost savings on a per pallet basis, 63 per cent reduction in turnaround times, reliable utilities, better access to markets, and inventory losses to both theft and damage reduced to near zero.

1 Africa Logistics Properties website: About us.

2 EDGE is a sustainability certificate awarded by the International Finance Corporation (IFC). EDGE stands for Excellence in Design for Greater Efficiencies. ALP North was the first warehouse in Africa to receive EDGE green building certification in 2018. The facility conserves natural resources with an estimated \$16,000 in predicted utility savings per month and approximately 600 tonnes in CO₂ savings per annum.



WHAT: Create employment opportunities (SDG 8.5) and contribute to sustainable industrialisation (SDG 9.1)

		Tenant business impact	Economic enabling impact	Market development impact
HOW		Operational efficiencies driving margin improvements and ability to scale	Impact realised through indirect economic and social benefits created by ALP's tenants	Influencing other investors and businesses through intangible outputs
		<ul style="list-style-type: none"> • Optimised usage of space • Storage cost savings • Improved turnaround times • Improved productivity 	<ul style="list-style-type: none"> • Direct and indirect job creation • Income uplift for suppliers and sales agents • Improved consumer access to goods 	<ul style="list-style-type: none"> • Development of new generation of warehouses • Technology transfer
WHO	Stakeholder	Six ALP tenants	Tenant employees, sales agents, suppliers	Warehouse developers and equipment manufacturer
	Geography	Kenya	Kenya	Kenya
	Characteristics	Businesses in diverse sectors and at stages of growth	Employees: skilled	Entities providing products and services to developers
HOW MUCH	Scale	Businesses: five local SMEs and one international corporate	Employees: 355 direct tenant jobs Suppliers: >10,000 Sales agents: >10,000s Consumers reached: ~1m	Warehouse developers: exact number unknown
	Depth	45-60% storage cost savings on a per pallet basis 63% reduction in delivery turnaround times New value-adding activities	Employees: safe, high quality jobs Suppliers: increased earnings Sales agents: 35% income uplift Consumers: improved standard of living and economic productivity	Catalysed local production of warehousing equipment

This table uses selected impact dimensions defined by the Impact Management Project.

Table 1: ALP impact summary



Photo: ALP North Logistics Park

01

Context

1.1 Warehousing in Kenya

High quality warehousing is an integral part of efficient supply chains but is often absent or undersupplied in developing markets.

Commercial warehouses are typically categorised as Grades A, B and C, according to the quality of their facilities. Table 2 highlights some of the key specifications of each warehousing grade, although other distinctions exist. For example, Grade-A warehouses are typically located in new industrial zones with better transport linkages and reliable utilities.⁴

» *High quality warehousing is an integral part of efficient supply chains but is often absent or undersupplied in developing markets.*

Warehouse	Floor		Min. floor to eaves height (metres)
	Floor type	Load-bearing capacity (tonnes per sqm)	
Grade-A	FM2, and laser-levelled with anti-dust coating	5	12
Grade-B	Standard concrete floor	3	6
Grade-C	Standard concrete floor	2	4

Table 2: Key specifications of typical Grade A, B and C warehouses⁵

⁴ Indian Logistics and Warehousing: Tracing the Lifecycle

⁵ Mobilis Outsourcing: Classification of Warehouses.

ALP developed Kenya's first Grade-A warehousing in 2017. Before this, the market was dominated by small Grade-C godowns, often staffed with low-skilled informal workers. Located in the old industrial areas of Nairobi, Mombasa, and Kisumu, these godowns were typically developed by owner-occupiers, with little design consideration for international best practice or the needs of third-party renters. They typically operate without technology, often relying on low-paid manual labour for warehousing operations.

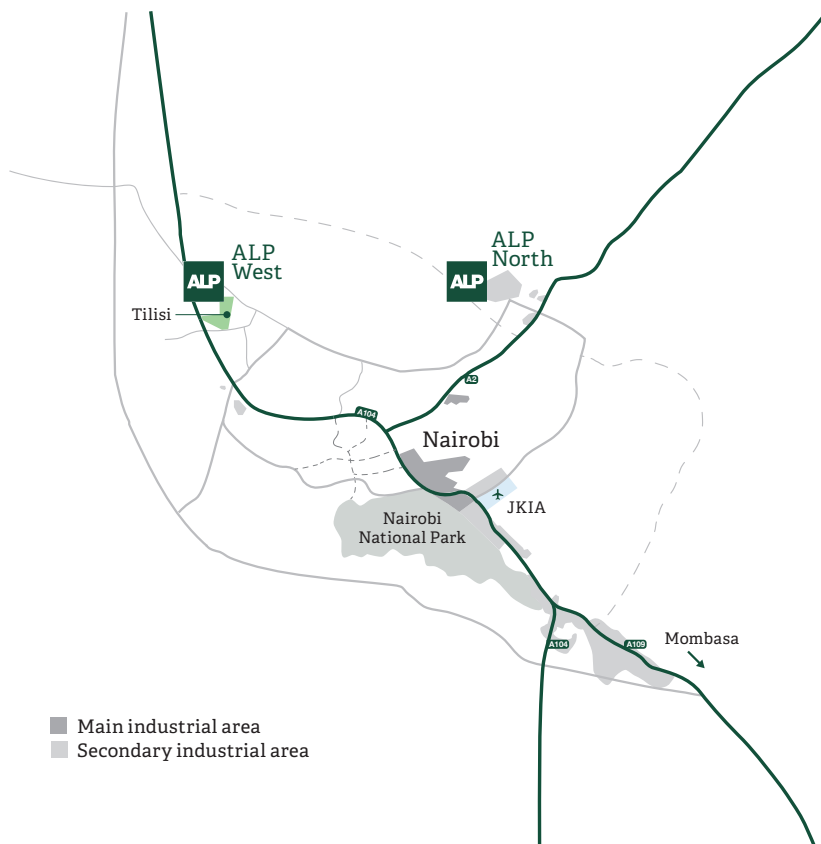


Figure 1: Location and transport links of ALP warehouses

The inherent limitations of godowns result in operational inefficiencies for tenants, such as loss of inventory to theft, unreliable utilities, and higher storage costs on a per pallet basis. Losses to theft result from inadequate security provisions and are often compounded by losses from physical damage of goods. For instance, a lack of reliable electricity and back-up power affects tenants handling perishable goods requiring cold storage. Similarly, operational inefficiency resulting from warehouse design, such as a lack of adequate loading docks, limits inventory handling capacity and increases turnaround times. Tenants may also face higher storage charges on a per pallet basis as the lower floor to eaves height reduces efficient utilisation of vertical space per sqm.

Typical godown locations and inadequate supporting infrastructure are a barrier to building supply chains resilient to climate risk. Extreme climatic events such as flooding can disrupt supply chains and reduce business profitability and competitive advantage. Many godowns lack proper drainage and sewerage facilities, and in some cases are located in areas prone to flooding. For instance, in Kenya, it is estimated that floods contribute to a direct long-term fiscal liability of 2.4 per cent of total GDP per annum.⁶

The supply of Grade-A warehousing has been growing since 2017, with the completion of ALP West and the Nairobi Gate Park expected to further increase available space.⁷ Out of the 22.2 million sqm of total warehousing space available in Kenya, only 65,000 sqm is estimated to be Grade-A.⁸ However, this supply is projected to increase with the completion of ALP West (increasing from 8,000 sqm to 100,000 sqm) and Nairobi Gate (increasing from 10,000 sqm to 204,386 sqm) as shown in Figure 2.⁹ This increased supply will meet the growing demand for larger and higher quality warehouses in the country.

Comparison of current supply of warehousing space in Kenya and planned pipeline as at March 2020

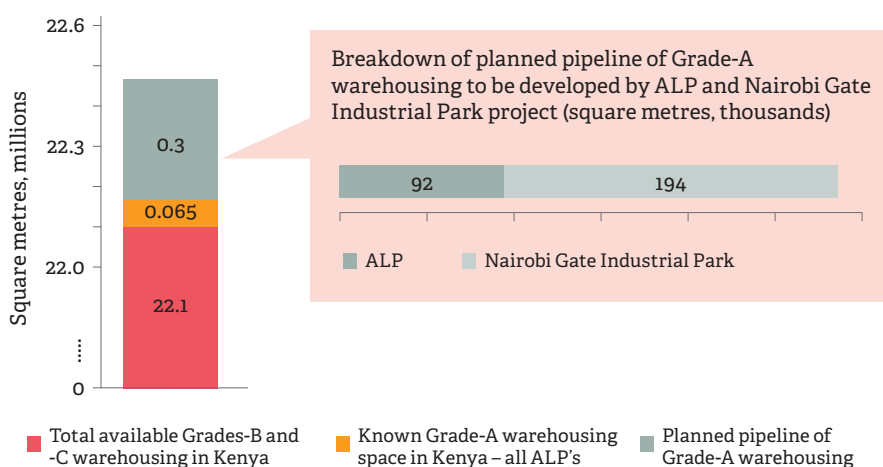


Figure 2: Supply of Grade-A warehousing in Kenya

6 WHO: Water Supply and Sanitation Economic Cost-Benefit Analysis.

7 The Nairobi Gate project is a Grade A warehousing development project by Improvon in partnership with Actis. The project has already completed the development of two 5,000 sqm warehouses in Nairobi.

8 Open Capital consultations.

9 Nairobi Gate website: About us page.



Photo: Construction of ALP West Logistics Park Phase 2

02

Tenant business impact

For ALP to deliver a meaningful economic development impact, it must create the conditions for its tenants to establish highly efficient supply chains which they can use as a source of competitive advantage. Consultations with ALP's tenants confirm it has successfully done this (Table 3), with tenants effectively leveraging technology and innovation to operate highly productive warehouses that maximise the value of physical and human resources.

The availability of this Grade-A warehousing has further incentivised ALP's tenants to invest in automating their warehousing operations and to upskill their labour force.

Tenant business impact	
WHAT	Impact: Operational efficiencies that drive margin improvements and ability to scale, realised from utilising ALP space.
HOW	Primary <ul style="list-style-type: none"> • Increased efficiency in space utilisation (per pallet cost). • Improved inventory management processes. • Increased productivity from access to reliable utilities. • Reduced stock losses attributed to warehouse security and quality floors. • Improved access to markets and transport infrastructure.
WHO	Stakeholder: ALP tenants Characteristics: Range of businesses spanning diverse sectors across retail (1), agriculture (2), manufacturing (1) and third-party logistics (1).
HOW MUCH	Scale: Five local SMEs and one large international corporate Depth/duration <ul style="list-style-type: none"> • Storage cost savings on a per pallet basis of 45-60% enabled by 12m storage height that has allowed tenants to increase the number of pallets stored per sqm by 200%-250%. • Delivery turnaround times have reduced by 63% to an average of 45 minutes, enabled by ALP's infrastructure with multiple docking stations and sufficient space for truck maneuvering. • Access to reliable utilities has supported improved productivity, with reliable water and electricity connections enabling tenants to invest in value-addition activities, such as repackaging and branding of dry foods. • ALP's security features and infrastructure have reduced inventory losses attributable to theft and physical damage to near zero, contributing to improved tenant margins. • More efficient last-mile distribution of goods to customers, facilitated by access to arterial roads and highways, has enabled tenants to minimise time spent in traffic.

Table 3: Tenant business impact summary

2.1. Inventory management efficiency

a. Space utilisation efficiency

Better infrastructure at Grade-A warehouses has enabled tenants to improve productivity by efficiently utilising space. Compared to godowns, ALP tenants reported a 200-250 per cent increase in the number of pallets they could store per square metre (from two to six-seven pallets), attributable to increased storage height (12 metres) and reinforced load bearing floors (eight-tonne point load).¹⁰

Optimal space utilisation has enabled tenants to save 45-60 per cent in per pallet storage costs compared to traditional godowns. The monthly average actual storage cost per pallet in a Grade-A warehouse is up to \$0.90 lower, at an estimated \$1.10, for tenants who fully rack their inventory to the ceiling as compared to godown facilities. However, these savings can only be realised through vertical racking of pallets up to the maximum height of 12m.¹¹

Further efficiencies can be achieved from the Very Narrow Aisle Pallet Racking (VNA) system, which expands the storage density of the warehouse by narrowing the width of the work aisles by up to 1.5m, to save up to 40 per cent in space.¹² However, this approach requires additional tenant investment in specialised equipment, such as narrow aisle forklift trucks.¹³

¹⁰ Open Capital analysis.

¹¹ Open Capital analysis.

¹² AR Racking: Very Narrow Aisle (VNA) Pallet Racking.

¹³ Open Capital consultations.

Access to Grade-A warehouse space has catalysed investment into modern equipment and upskilling of employees, further improving warehousing operations. Tenants reported that the width of work aisles and high load-bearing floors enable the use of forklift and pallet jack equipment. One tenant is considering investing in a semi-automated mole system that delivers and extracts pallets within a deep-lane rack system. This will increase the number of pallets that can be moved per hour, further improving inventory management efficiency.¹⁴ Modernisation has necessitated investment into employee training, with tenants reporting the current skills gap as a barrier to fully capturing the benefits offered by Grade-A warehousing. Employee training has resulted in improved workforce productivity, as demonstrated by tenants' ability to grow their top-line without a corresponding linear increase in their warehousing teams.

» Access to Grade-A warehouse space has catalysed investment into modern equipment and upskilling of employees, further improving warehousing operations.

b. Inventory handling efficiency

Tenants have recorded a 63 per cent reduction in turnaround times enabled by multiple docking stations with adjustable bases. Tenants highlighted they could now offload more vehicles simultaneously at ALP when compared to their previous facilities, supporting increased inventory handling capacity. The numerous docking stations available at ALP also allow for cross-docking, enabling tenants' handling capacity to increase by up to 50 per cent.¹⁵

ALP's 40m-deep parking yards play an important role in eliminating truck congestion and reducing turnaround times. With the average articulated truck possessing a 28m turning circle, ALP's yard enables maneuverability. This was highlighted by tenants who reported that average turnaround times have reduced by an average of 63 minutes at ALP.¹⁶

Grade-A warehousing has let tenants implement Warehousing Management Systems (WMS) to support increased throughput capacity. Between January and June 2020, four tenants increased the total number of inbound truck deliveries by 1.7 times, from 1,487 to 2,598 deliveries, as shown in Figure 3.¹⁷ Over a short period of time, COVID-19 rapidly increased demand of consumer goods through e-commerce channels, affecting several ALP tenants operating in this sector. ALP's space, which supports a range of technology-driven infrastructure such as WMS, ensured tenants could meet this increased demand effectively, with tenants reporting this would have been more challenging if they were operating from godown facilities.

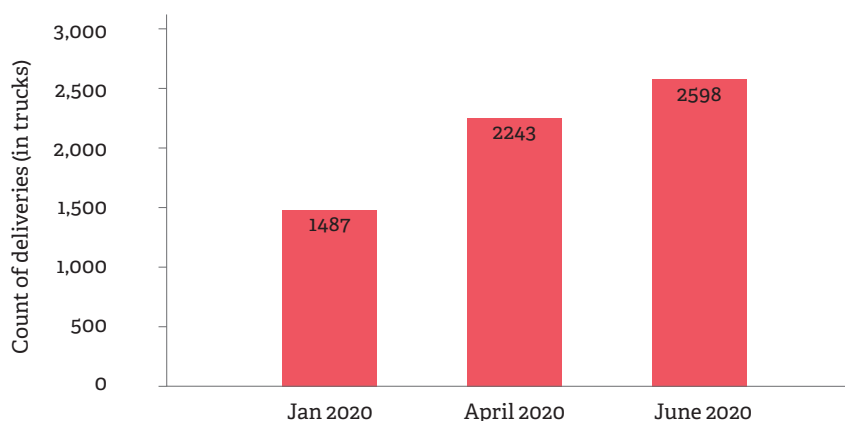


Figure 3: Expanded operations of ALP tenants highlighted by 75% increase in inbound logistics

14 A semi-automated mole system is an electro-mechanical platform that runs under the pallet loads on rails, delivering and extracting pallets, and allows for optimal storage densities – up to 50 pallet positions deep.

15 Cross-docking is a logistics practice where goods from a supplier are distributed directly to the customer without first being held in storage, eliminating storage costs and cutting down handling time.

16 Open Capital analysis.

17 This analysis takes account of available data from four tenants.

2.2. Access to reliable utilities

a. Electricity

ALP tenants attributed access to reliable electricity, supported by back-up generators and solar power, as a key enabler to round-the-clock operations. According to a study carried out by the Center for Global Development in 2018, unreliable power can cost companies up to 31 per cent in sales annually.¹⁸ This resonates with those ALP tenants managing perishable goods. They noted they can fully utilise cold storage, minimising damage to inventory from intermittent power outages previously experienced in their godown facilities.

b. Water

Tenants reported that access to a clean and reliable water supply has catalysed investment into value-addition activities. One tenant highlighted that access to water has helped them to introduce and support value-addition operations for select consumer goods. Another tenant reported that ALP's reliable water supply meant they could establish an onsite processing facility of work-in-progress materials that will replace final products currently being imported. This highlights how access to reliable utilities can catalyse local investment and production. It also demonstrates the business-level impact that Grade-A warehousing can have in sub-Saharan Africa, which experiences more climatic variability than other regions and has one of the lowest per capita water storage capacities.¹⁹

2.3. Improved access to markets and supply chain partners

The location of ALP, with access to arterial roads and major highways, has enabled efficient movement of goods, resulting in fuel and time savings. All six tenants reported that ALP warehouse locations – away from the main congested industrial zone of the city and with access to good road connections – were a major consideration in their decision to take up tenancy. Tenants also highlighted that operating from ALP had helped to increase their service delivery efficiency, with one tenant reporting consistently high customer satisfaction levels while at ALP. ALP North is accessible from main highways, including the Northern and Eastern Bypass highways. ALP West will also benefit from the ongoing upgrade (from four to six lanes) of the Nairobi-Naivasha-Nakuru highway, allowing for direct highway access to the major agricultural production regions in Central, Rift Valley, and Western counties of Kenya.²⁰

2.4. Reduced losses to theft

ALP's enhanced security features have reduced theft-related losses, improving business margins. ALP security features include a secure single entry and exit gatehouse, and extensive closed-circuit television (CCTV) coverage of its facilities. These features are especially relevant to Kenya, which accounts for 14 per cent of all cargo theft in Middle East and Africa, with theft from warehousing facilities the second largest contributor after cargo truck hijackings.²¹ One ALP tenant reported zero losses for one client it serves since moving to the ALP space, marking a significant improvement on the \$100,000 worth of product losses incurred over six months in their previous facility. Another tenant expects to reduce their inventory losses to zero from their current levels estimated at 2-5 per cent once they move to an ALP space.

2.5. Reduced losses to physical damage

The high-quality of Grade-A warehousing floors reduces inventory losses to physical damage. For example, jointless concrete floors with anti-dust coating have provided an optimal operating environment. One tenant in the manufacturing sector reported ALP's dustless floors have helped them to eliminate deterioration of inventory attributable to dust.

18 Centre for Global Development: New Study: In Sub-Saharan African Countries with Unreliable Power, Outages Cost Companies As Much as 31% in Sales (2018).

19 WHO: Generating Economic Benefits with Improved Water Resources Management and Services.

20 Africa Logistics Properties: Brochure (2020).

21 BSI and TT Club: Cargo Theft Report (2020).



Twiga is a business-to-business (B2B) marketplace platform connecting suppliers of quality agricultural produce to urban vendors across Kenya. Backed by leading local and international investors, including the International Finance Corporation, the high-growth company works with 17,000 small-scale and 12 large-scale farmers, with the goal of building a consolidated network of producers across Kenya. Twiga takes up occupancy at ALP North from mid-2021, in anticipation of a significant increase in daily throughput.

In line with its mission to revolutionise African retail, access to Grade-A warehousing will help Twiga to invest in productivity-enhancing processes and technology. A new banana ripening facility at ALP with a daily production capacity of 150 tonnes is made possible by access to reliable utilities and arterial roads essential for efficient delivery. With the average small-holder farmer currently producing an estimated 0.5-2 tonnes of bananas per month, this facility will minimise post-harvest losses by allowing bananas to be picked green.

The move to ALP is expected to encourage the transition of Twiga's warehouse staff to higher-skilled roles. The company is training its staff on the handling of fresh produce and onboarding highly-skilled employees, including engineers and technicians, that will support equipment maintenance and operation of the new ripening facility. The upskilling of staff will help Twiga to realise productivity gains by managing a five times growth in daily throughput while maintaining growth of the warehousing team at 30 per cent.

Twiga will also benefit from ALP's enhanced security, quality infrastructure, and access to arterial roads and major highways. The enhanced security features at ALP are expected to reduce product losses attributable to theft. Similarly, high-quality infrastructure offering multiple docking stations will facilitate efficient truck loading and off-loading, reducing turnaround times from two to three hours to 45 minutes. Additionally, inventory losses attributable to product deterioration should reduce because of more efficient last-mile distribution of its perishable products through access to key arterial roads.

Figure 4: Twiga case box



Photo: Completed ALP West Logistics Park, Phase 1

03

Economic enabling impact

Grade-A warehousing is an economic enabler where its ultimate impact on people is achieved indirectly, through the activities and outputs of its tenants' businesses. This is important to impact investors such as CDC, because with ALP's tenants expanding their business activities and operational efficiencies, they have created formal sector jobs directly and supported livelihoods indirectly, having a positive impact on low-income and under-served populations, as highlighted in Table 4.

Economic enabling impact			
WHAT	Impact: Impact achieved as a result of indirect economic and social benefits created by ALP tenants.		
HOW	Primary <ul style="list-style-type: none"> Economic development through ALP tenant direct and indirect job creation. Economic opportunities and income uplift for suppliers and sales agents. Customer access to a wider product offering at more affordable prices. 		
WHO	<table border="1"> <tr> <td>Stakeholder: Employees, sales agents, suppliers, and customers.</td> <td>Characteristics: Tenant employees: shift towards increased skill level</td> </tr> </table>	Stakeholder: Employees, sales agents, suppliers, and customers.	Characteristics: Tenant employees: shift towards increased skill level
Stakeholder: Employees, sales agents, suppliers, and customers.	Characteristics: Tenant employees: shift towards increased skill level		
HOW MUCH	<table border="1"> <tr> <td> Scale: <ul style="list-style-type: none"> 355 direct employees working for ALP tenants Tens of thousands of sales agents working for one ALP tenant. 1 million+ customers for one tenant; thousands of customers served by other tenants. Thousands of suppliers (e.g., 17,000 farmers who supply one tenant with produce). </td> <td> Depth/duration <ul style="list-style-type: none"> ALP has catalysed job creation and also enabled the transition of tenant's warehouse staff to higher-skilled roles, allowing them to take advantage of the opportunities accorded by ALP's Grade-A infrastructure. Average income uplift of 35% for sales agents realised from higher volumes of goods distributed. Enabled some tenants to pass on cost savings from efficient warehousing and goods distribution to customers through lower prices of products. Increased income for some suppliers through increased prices received and higher volumes of goods sold. </td> </tr> </table>	Scale: <ul style="list-style-type: none"> 355 direct employees working for ALP tenants Tens of thousands of sales agents working for one ALP tenant. 1 million+ customers for one tenant; thousands of customers served by other tenants. Thousands of suppliers (e.g., 17,000 farmers who supply one tenant with produce). 	Depth/duration <ul style="list-style-type: none"> ALP has catalysed job creation and also enabled the transition of tenant's warehouse staff to higher-skilled roles, allowing them to take advantage of the opportunities accorded by ALP's Grade-A infrastructure. Average income uplift of 35% for sales agents realised from higher volumes of goods distributed. Enabled some tenants to pass on cost savings from efficient warehousing and goods distribution to customers through lower prices of products. Increased income for some suppliers through increased prices received and higher volumes of goods sold.
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Table 4: Economic enabling impact summary

3.1. Employees

ALP tenants directly employ more than 355 staff, with two tenants expecting to create an additional 60 jobs as they scale up their operations at ALP. These jobs are characterised by increased productivity, better working conditions, and improved work safety resulting from automation systems such as electric dock levellers and mechanised loading conveyors with loading platforms. This shift towards higher-skilled jobs is underpinned by tenants' investments into employee upskilling. Tenants also reported that ALP provides a safe working environment for employees, with features such as optimum lighting and access to clean sanitation facilities. This has significantly improved employee productivity and the quality of jobs created.

ALP tenants have created indirect employment opportunities across their supply chains to support expanded operations. One tenant reported increasing their fleet of externally contracted delivery drivers from 100 to 250 drivers and loaders to handle the higher volumes needed to meet customer demand since moving to ALP. One tenant also highlighted they had sub-contracted different service providers, such as local distributors and WMS providers, to enable automation of their warehouse, as well as fuel and automotive parts suppliers to support fleet maintenance, further creating indirect jobs.

3.2. Suppliers

Improved business efficiencies have enabled tenants to expand their operations and source higher volumes of goods, increasing earnings across their supply chain. One tenant said efficiencies attributed to ALP space will allow them to source fresh agricultural produce from a larger network of farmers while paying a higher price per kilogram of produce than middlemen. This will help support rural livelihoods by improving the standard of living among farmers and their families. Increased business activities among suppliers who work with ALP's tenants has supported the local business ecosystem – such as raw material and transport providers – through increased flow of goods and services. This ecosystem would have otherwise been disproportionately impacted by the COVID-19 pandemic.

3.3. Sales agents

Tenants' sales agents have realised increased earnings as a result of the higher volume and value of goods flowing through the retail network. One tenant reported ALP space led to an increase in the volumes of goods distributed by sales agents in low income rural areas, allowing agents to earn more through commissions and better support their households. As a result, agents who previously relied on their small businesses as the sole source of their livelihoods have been able to expand the scope of economic activities they engage in and diversify their sources of income.

3.4. End consumers

End consumers have benefited from increased access to goods, improving their standard of living and economic productivity. One e-commerce tenant increased its product range to offer a wider variety of products, improving access for local communities. Customers with limited disposable income have benefitted from expanded product ranges that improved purchasing decisions. Similarly, access to agricultural products, such as fertiliser and fencing wire, has also increased productivity among customers in farming communities, by reducing the time and transportation costs previously incurred sourcing such goods from traditional retail outlets located in distant urban centres.



ALP tenants directly employ more than 355 staff, with two tenants expecting to create an additional 60 jobs as they scale up their operations at ALP. These jobs are characterised by increased productivity, better working conditions, and improved work safety.



Copia is a mobile commerce company that distributes quality goods at affordable prices to over one million underserved customers in rural and semi-rural areas across Kenya. An ALP tenant since 2018, Copia delivers to tens of thousands of sales agents from its warehouse at ALP North. Its diverse product portfolio, comprising thousands of stock keeping units (SKUs) across ten product categories, helps Copia to serve as a one-stop shop to its target market. Copia's typical customer is a low income woman aged 25-40, who is managing a household of two or more children. Copia's aim is to be the best value retailer to this market segment. The efficiencies enabled by ALP's warehousing enables Copia to achieve this and provide access to quality and affordable products that improve the lives of its customers.

Efficient supply chains are critical in enabling Copia to reach rural markets while maintaining affordable pricing. Copia's expansion, both in products offered and volumes processed, has been possible through ALP warehousing. Access to spacious facilities and high-density racking has supported efficient picking, packing and shipping to sales agents, with truck turnaround times reducing from 2.5 hours to 40 minutes. ALP's security features have also enhanced productivity by supporting 24-hour operations unavailable in Copia's previous facility, and reducing inventory losses attributable to theft by 300 per cent.

Customers benefit from reliable access to affordable agricultural, healthcare and education products. Insecticide-treated mosquito nets are Copia's top-selling healthcare product in western Kenya, a region characterised by high prevalence of malaria. The nets are government-approved, with customer feedback surveys indicating high levels of satisfaction among users. Copia is also a trusted channel for accessing farm inputs, such as fertilisers, with local agrovets often unable to reliably meet demand. The scale of ALP's facility allows for the provision of multiple products, such as iron-sheets and water storage tanks, to the same customer base. The flexibility accorded by the ALP facility also ensures efficient floorspace utilisation. For example, Copia can target seasonal trends by varying inventory mix and offering a broader range of educational products at the beginning of school terms. This portfolio optimisation has been further aided by the scale of the ALP facility that enables adherence to public health best practice, such as segregating food and non-food items.

Copia's agent network benefits from increased earnings and higher customer traffic in their shops. The network is made up of low income agents who often run small businesses. On joining Copia, these agents report an average income uplift of 35 per cent. Increased earnings, attributable to both higher volumes and a better product mix, have empowered agents to build their working capital to optimise inventory, maintain growth, mitigate volatility and achieve greater financial resilience.

Copia has grown its warehouse workforce from 60 to 150 in the last two years and undertaken upskilling initiatives. As well as hiring staff, Copia provides training and rotates positions to ensure staff are equipped with a balanced set of relevant skills needed to effectively manage the warehouse. Staff that started on the workshop floor have progressed into supervisory roles, overseeing newer hires into the warehouse. For more technical roles, Copia has hired experienced individuals to build expertise in the company, such as in logistics and machinery operations. Copia's growth has also catalysed indirect job creation across its supply chain, with an additional 180 third-party staff hired across the logistics function since moving to ALP.

The ALP warehouse has provided a safe working environment for Copia employees. Well-lit working spaces, clean restrooms, an on-location food canteen, and complimentary employee transport has helped Copia provide its workforce with a high-quality working environment. ALP's space ensures the adoption of best-practice health and safety protocols, minimising the risk of accidents when handling potentially hazardous products like roofing iron sheets. These facilities and benefits are believed to have contributed to high staff retention levels, evidenced by a low annual turnover.



Efficient supply chains are critical in enabling Copia to reach rural markets while maintaining affordable pricing.

Figure 5: Copia case box



Photo: ALP West Logistics Park, Phase 1 construction

04

Market development impact

Alongside its business and economic-enabling impact, ALP’s practices have spread to other businesses and contributed to the development of warehousing and related sectors in Kenya more generally, as highlighted in Table 5.

Market enabling impact			
WHAT	Impact: Changes in the behaviour of other investors and businesses through intangible outputs such as knowledge creation.		
HOW	Primary <ul style="list-style-type: none"> • Development of new generation of warehouses by other developers. • Technology transfer to contractors involved in the construction of Grade-A warehouses. • Crowding in of international businesses and investors to Nairobi due to availability of improved business infrastructure – no evidence so far. 		
WHO	Stakeholder: Local warehouse developers, contractors and equipment manufacturers.		
HOW MUCH	<table border="0"> <tr> <td style="vertical-align: top;"> Scale: <ul style="list-style-type: none"> • Local warehouse developers – exact number unknown. • Contractors – exact number unknown. • Equipment manufacturers – exact number unknown. </td> <td style="vertical-align: top;"> Depth/duration <ul style="list-style-type: none"> • The construction of ALP’s Grade-A warehousing has influenced the development of a new generation of warehouses, with local developers looking to match ALP’s international standards, • ALP has facilitated transfer of technology as evidenced by a local contractor who reportedly began independently constructing jointless FM2 floors after partnering with a more experienced South African contractor to build ALP’s warehouses, • ALP has catalysed local production of warehousing equipment, such as racking equipment which tenants had previously sourced from Egypt and South Africa </td> </tr> </table>	Scale: <ul style="list-style-type: none"> • Local warehouse developers – exact number unknown. • Contractors – exact number unknown. • Equipment manufacturers – exact number unknown. 	Depth/duration <ul style="list-style-type: none"> • The construction of ALP’s Grade-A warehousing has influenced the development of a new generation of warehouses, with local developers looking to match ALP’s international standards, • ALP has facilitated transfer of technology as evidenced by a local contractor who reportedly began independently constructing jointless FM2 floors after partnering with a more experienced South African contractor to build ALP’s warehouses, • ALP has catalysed local production of warehousing equipment, such as racking equipment which tenants had previously sourced from Egypt and South Africa
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Table 5: Catalysing markets impact summary

4.1. Skills and technology transfer

The development of ALP's Grade-A warehousing facilitated technology transfer during the construction phase and influenced the development of a new generation of warehouses. ALP's reinforced, jointless FM2 floor was constructed by a South African contractor, partnered with a local construction company, because of a lack of local technical capacity. As the benefits of ALP's floor quality have become more widely known, demand has reportedly increased. As a result, the local partner to the South African contractor is now independently offering the service locally. In addition, ALP has catalysed local production of other high-quality warehousing equipment. For example, ALP's unique ceiling heights demonstrated the market opportunity for locally-manufactured racking equipment, which tenants had previously sourced from Egypt and South Africa. As a result of the growing market awareness of Grade-A warehousing benefits, ALP has also influenced the development of a new generation of warehouse developers, primarily comprising local industrialists looking to match international standards and serve the growing demand for quality warehousing.²²

4.2. Enhancing investment attractiveness of Nairobi to local and international capital

It is not yet possible to attribute access to Grade-A warehousing as a determining factor in attracting international firms into Nairobi, though this may be demonstrated in future. The ALP tenant base is predominantly composed of local firms, with only one international tenant. Broader factors, such as the size and competitive nature of different sectors, and infrastructural and bureaucratic challenges to establishing operations, have been attributed to the slower uptake of space from international entrants to the market. Also, the COVID-19 pandemic has further impacted long-term investment decisions. While warehousing may prove to be a critical enabler to foreign investment in the long run, this is yet to be demonstrated.

However, international investors financing local companies did influence decision-making to adopt Grade-A warehousing. Tenants reported that their international investor base had influenced management decision-making to adopt Grade-A warehousing and best practices to support scale and productivity. As a result, local businesses are catalysing economic growth by influencing the development of quality standards and efficient use of resources in the market.²³

4.3. Entry of new business models enabled by high-quality warehousing

Grade-A warehousing has enabled tenants to extend their reach, serve new market segments and support innovative business models. ALP tenants underscored the importance of Grade-A warehousing as a key enabler to expanding business operations to serve a wider customer base with a broader array of products, especially in rural underserved areas. Similarly, tenants reported engaging in new value-adding processing activities, further expanding their product offering. Several tenants also launched new product lines, with one tenant stating that, the availability of ALP's Grade-A space was a major consideration in their decision to launch a new business service.



The development of ALP's Grade-A warehousing facilitated technology transfer during the construction phase and influenced the development of a new generation of warehouses.



Grade-A warehousing has enabled tenants to extend their reach, serve new market segments and support innovative business models.

²² Open Capital consultations.

²³ World Bank: Making it Big - Why Developing Countries Need More Large Firms (2020).

4.4. Improved competitive landscape

Grade-A warehousing is yet to demonstrably contribute to a more competitive business landscape in Kenya. We attribute this to a number of factors such as regulatory frameworks, governing infrastructure development and fiscal incentives which have influenced the development of the Kenyan business landscape. However, Grade-A warehousing has strengthened tenants' operations and encouraged them to compete effectively against other players in the market. This was evidenced by one tenant who reported that, after launching their new business unit, ALP space allows them to compete against established local and international companies in the market. As a result, the tenant has acquired a portfolio of international clients and their client occupancy rate has risen to an estimated 70 per cent within three years, with the rate projected to grow to 100 per cent next year. This demonstrates that Grade-A warehousing can help tenants to achieve growth by driving increased competition in the market.






Photo: Warehouse internal specification, ALP North Logistics Park

05

Conclusion

Warehousing developers can generate a substantial indirect impact through tenants and their supply chain partners. Our findings indicate that ALP's Grade-A warehousing has created the following impacts:

 Tenant business impact	 Economic enabling impact	 Market development impact
<p>Impact identified</p> <ul style="list-style-type: none"> Improved operational efficiency enabling tenants to achieve lower unit storage costs and support higher sales volumes Increased productivity due to reliable utilities enabling tenants to operate round-the-clock and supporting investment in additional processing capacity Reduced inventory losses attributable to theft and physical damage supporting margin improvement for tenants 	<p>Impact identified</p> <ul style="list-style-type: none"> Enabled provision of a wider product portfolio to customers at more affordable prices, improving the standard of living Increased volumes contributing to higher incomes for both sales agents and suppliers Catalysed economic development through direct and indirect creation of formal and informal employment opportunities 	<p>Impact identified</p> <ul style="list-style-type: none"> Facilitated transfer of new technologies enabling provision of improved services previously unavailable in Kenya Found that local businesses backed by international investors can catalyse economic development Supported tenants to expand their scope of operations to serve new market segments <p>Impact yet to be demonstrated</p> <p>Grade-A warehousing can:</p> <ul style="list-style-type: none"> Directly enhance Nairobi's status as an investment destination Enable entry of new business models Contribute to a more competitive business environment in the market

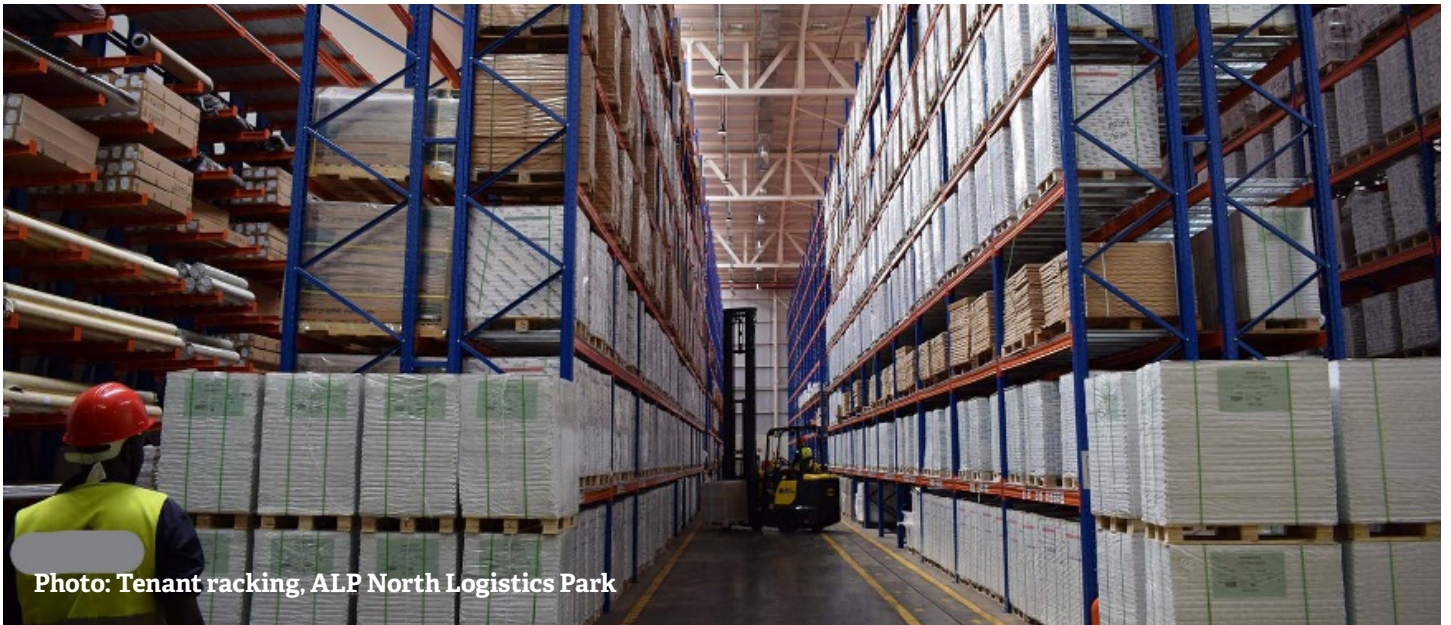


Photo: Tenant racking, ALP North Logistics Park

06

Recommendations

Based on our findings, we recommend Grade-A warehouse developers, investors and researchers consider the following areas to better understand and enhance impact:

Recommendations	
	<p>Grade-A warehousing providers should consider educating and training tenants on international best practices for warehouse management. Warehousing providers can educate potential tenants during the sales process to demonstrate how higher rent per sqm can translate to cheaper storage costs on a per pallet basis, through efficient utilisation of space and racking adoption. For tenants with limited exposure to international warehousing best practice, after-sales onboarding can support the realisation of these efficiencies. Tenants have attributed a lack of local skilled labour and first-hand knowledge of managing Grade-A warehouses as a barrier to fully capturing the benefits. Addressing this lack of local know-how could help tenants to efficiently utilise space and realise even greater benefits.</p>
	<p>Investors should consider adapting their impact assessment frameworks to fully capture the indirect impact realised through tenants. Frameworks that have not been tailored to the warehousing sector may prioritise direct impact and fail to capture indirect impact. Unlike other supply chain or logistics stakeholders, warehousing developers generate substantial indirect impact through tenants and their supply chain partners. Existing frameworks are therefore likely to exclude the full impact created across tenants' supply chains. Investors should consider measuring market and human-level impacts across supply chains, and provide warehousing investees with resources and technical assistance required to collect data from tenants in a low-cost way.</p>
	<p>Further quantitative studies should focus on tenant supply chains to measure the impact identified in this study through supply chain effects in the broader market. There has been limited impact research in the warehousing sector, with most existing studies reliant on input-output macroeconomic modelling rather than bottom-up research that captures the nuanced supply chain effects of Grade-A warehousing. This challenge is exacerbated by a lack of granular information, with available data being both limited and available mainly in aggregated form. Bottom-up studies to track impact – from its origin in high-quality warehousing facilities to the specific end-beneficiaries in the supply chain – will be crucial to addressing these knowledge gaps.</p>

» *Grade-A warehousing providers should consider educating and training tenants on international best practices for warehouse management.*

» *Investors should consider adapting their impact assessment frameworks to fully capture the indirect impact realised through tenants.*

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▶ **CDC Group:**

Kyle Alexander
kalexander@cdcgroup.com
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