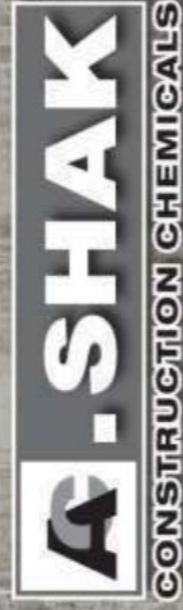


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# Rising Construction Costs: How Material Price Spikes are Impacting Kenya's Construction Boom

Kenya's construction industry is in the midst of an exciting period of growth, with new projects and developments symbolizing economic progress and increased opportunities for businesses and homeowners. However, this boom is accompanied by a significant challenge—the rapid escalation of construction costs, driven largely by soaring prices for building materials and fuel. As steel and cement prices surge, this trend threatens to impact the entire construction ecosystem, potentially stifling the market's growth and placing additional strain on developers and homebuyers.



- **Rising Fuel Prices:** Transportation and manufacturing are key components of construction, and higher fuel prices contribute to increased costs for shipping materials and running heavy machinery.
- **Supply Chain Disruptions:** The COVID-19 pandemic has led to ongoing disruptions in global supply chains, resulting in reduced availability of materials and longer lead times.

The combined effect of these factors has led to a significant increase in the average cost per square meter for building a house in Kenya, with estimates suggesting a rise of over 20%. This upward trend is creating a ripple effect across the industry, affecting both developers and consumers.



## Material Cost Spikes: What's Behind the Increase?

The cost of core building materials such as steel and cement has surged over the past year, with some reports indicating increases of up to 36% in certain cases. This escalation can be attributed to several factors:

- **Global Market Trends:** The construction industry's supply chain is highly dependent on global markets, and international price fluctuations have a direct impact on local costs.

## Implications for Developers and Homebuyers

For developers, these rising costs pose a difficult dilemma. On the one hand, they must contend with increased budgets and narrowing profit margins, which can force them to reconsider or delay new projects. On the other hand, to maintain profitability, developers may have to pass these additional costs onto consumers, making it more expensive to buy a home or invest in property.

This cascading effect has serious implications for homeownership in Kenya, particularly for first-time buyers and those with limited budgets. As construction costs rise, the dream of owning a home becomes increasingly out of reach for many Kenyans, potentially slowing down the housing market's growth.

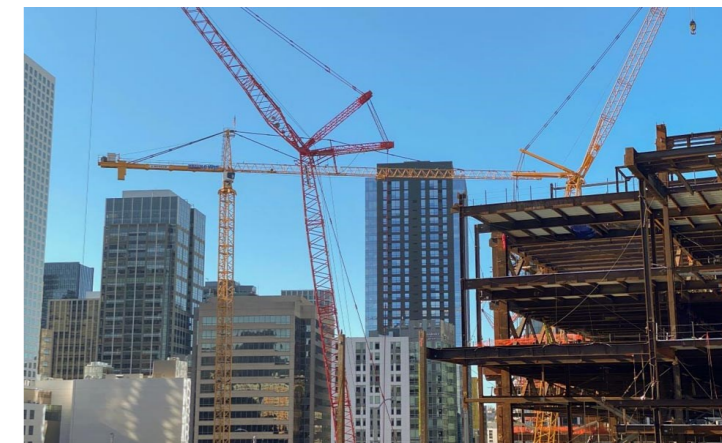


## Beyond New Developments: Impact on Renovations and General Construction

The surge in material costs isn't just affecting new construction projects. Home renovations, business expansions, and general maintenance work are also experiencing the strain of higher prices. Small businesses and individual homeowners who had hoped to make improvements or repairs are finding that these projects now come with a much steeper price tag.

## Potential Solutions to Address Rising Costs

Addressing the challenge of rising construction costs will require coordinated efforts from both the Kenyan government and industry stakeholders. Some possible approaches to mitigate this issue include:



- **Exploring Alternative Materials:** Investing in research and development of local, alternative building materials could help reduce reliance on costly imports and lower construction costs.
- **Fuel Price Stabilization:** Efforts to stabilize fuel prices would not only benefit the construction industry but also have a broader positive impact on the economy.
- **Government Incentives and Policies:** Implementing incentives for developers to reduce costs and promoting affordable housing policies can help ease the burden on consumers.

While Kenya's construction boom is a promising sign of economic vitality, it's crucial to address the challenge of rising material costs. Failure to do so could slow the market's growth and make homeownership increasingly difficult for many Kenyans. By exploring innovative solutions and promoting policies that stabilize costs, stakeholders can ensure that this construction boom becomes a sustainable pathway to economic development and affordable housing for all.





## The Impact on Employment and Economic Development

The construction industry plays a significant role in Kenya's economy, providing a substantial number of jobs and stimulating related industries. Rising construction costs, therefore, not only affect developers and homebuyers but also impact employment and broader economic development.

As projects face delays or cancellations due to budget constraints, construction workers and contractors may find themselves with fewer opportunities. This reduction in employment can ripple through the economy, affecting suppliers, equipment rental companies, and even local businesses that rely on construction activity to sustain demand.

Moreover, rising construction costs can affect public infrastructure projects. If costs continue to escalate, the government may need to reassess its budget allocations, potentially delaying critical infrastructure such as roads, schools, and hospitals. These delays can impact public services and slow economic growth in areas dependent on new infrastructure development.



## Challenges for Affordable Housing Initiatives

Kenya's government has been keen on promoting affordable housing as part of its "Big Four Agenda," aiming to address the housing deficit and make homeownership more accessible. However, the spike in construction costs poses a significant challenge to these initiatives.



As developers struggle with higher material costs, the goal of providing affordable housing becomes more difficult to achieve. The government may need to consider additional subsidies or incentives to encourage developers to continue building affordable units. Without these measures, the gap between demand and supply for affordable housing could widen, exacerbating the housing crisis.

## Innovations and Technology in Construction

To mitigate rising costs, the construction industry in Kenya could turn to innovative technologies and methods to improve efficiency and reduce waste. For example, using prefabricated or modular construction can reduce labor and material costs by allowing for faster assembly and minimizing onsite waste. Additionally, adopting sustainable construction practices, such as using recycled materials or energy-efficient designs, can offer long-term cost savings.



Technological advancements, such as Building Information Modeling (BIM), can help developers optimize construction processes, reducing errors and delays. By embracing these innovations, the industry could offset some of the increased costs and improve project timelines.

## Collaboration and Policy Advocacy

Addressing the issue of rising construction costs requires collaboration among industry stakeholders, government agencies, and financial institutions. By working together, these groups can develop comprehensive strategies to stabilize costs and promote sustainable growth in the construction sector.

Industry associations can play a crucial role in advocating for policies that support the construction industry. By engaging with policymakers, these associations can highlight the challenges posed by rising material costs and propose solutions to maintain affordability and support continued growth.



## Conclusion: A Sustainable Path Forward

While Kenya's construction boom is a positive sign of economic growth, it faces significant hurdles due to rising construction costs. Addressing this challenge requires a multifaceted approach, focusing on stabilizing material and fuel prices, promoting innovation, and supporting affordable housing initiatives.

By implementing policies that encourage local production, stabilize fuel costs, and promote sustainable construction practices, stakeholders can create a more resilient construction industry. This approach will not only help developers and homebuyers but also support broader economic development and job creation.

In the end, the goal is to ensure that Kenya's construction boom leads to a more prosperous future for all, where the benefits of economic growth are accessible and sustainable. With the right strategies in place, the industry can continue to thrive despite the challenges posed by rising construction costs.





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## Shadow Over South Africa's Construction Boom: Mafia Influence and Worker Safety Concerns



South Africa's construction industry is experiencing a positive trend, with increased investment and a growing number of projects. However, this progress is overshadowed by the influence of mafia-like groups and the ongoing need to address worker safety. These challenges threaten to undermine the industry's growth and discourage investment

The construction mafias' influence is not only limited to financial gains but also extends to controlling the supply chain, labor, and materials. This level of control can lead to substandard work, delays, and increased costs, further impacting the industry's growth.

### Construction Mafias: A Growing Concern

Criminal organizations, commonly referred to as "construction mafias," have been reported to exert control over various aspects of the industry. Their activities range from extorting protection money from contractors to disrupting projects through intimidation and violence. This creates a climate of fear and uncertainty, hindering legitimate businesses and discouraging investment.





## Worker Safety: A Persistent Challenge

Worker safety remains a critical concern in the construction industry. Construction sites are inherently hazardous environments, and lax safety protocols can have devastating consequences. The industry has a history of accidents and fatalities, highlighting the urgent need for stricter regulations and enforcement.

The lack of safety awareness and training among workers, coupled with the pressure to meet project deadlines, can lead to dangerous shortcuts and compromises. This puts workers at risk and can lead to long-term health issues, further impacting the industry's growth and sustainability.



## A Safe and Fair Environment

South Africa's construction boom presents a significant opportunity for growth and development. However, it's crucial to address the issues of mafia influence and worker safety to ensure this progress is sustainable and benefits all stakeholders. Only by creating a safe and fair environment can the industry thrive and contribute meaningfully to the nation's economic well-being.

By prioritizing safety and addressing the influence of mafia-like groups, the construction industry can continue to grow and provide opportunities for businesses and workers alike. This will not only benefit the industry but also contribute to the overall economic growth and development of South Africa.



## Addressing the Challenges

Addressing these challenges requires a multi-pronged approach. Law enforcement agencies must step up their efforts to dismantle mafia operations and bring perpetrators to justice. The construction industry itself needs to prioritize safety by implementing robust protocols, providing proper training for workers, and using personal protective equipment consistently.

Collaboration between the government, industry stakeholders, and worker unions is essential. By working together, they can establish clear safety standards, enforce regulations effectively, and create a culture of safety awareness across all levels of the construction industry.

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# South Africa's Construction Industry Embraces Eco-Friendly Practices

South Africa's construction industry is undergoing a significant shift towards sustainability, with an increasing focus on eco-friendly practices. This includes the use of digital tools to minimize CO2 emissions and a growing emphasis on sustainable building materials like Pratliperl.

## Digital Tools to Minimize CO2 Emissions

The construction industry is one of the largest contributors to greenhouse gas emissions, accounting for 39% of all CO2 emissions in the world. In response to this, South Africa's construction industry is turning to digital tools to minimize their carbon footprint.



Building Information Modeling (BIM) is one such digital tool that is being widely adopted in the industry. BIM is a process that involves creating and managing digital representations of physical and functional characteristics of places. It enables architects, engineers, and construction professionals to plan, design, construct, and manage buildings and infrastructure more efficiently, reducing waste and minimizing the need for rework.

Another digital tool that is gaining popularity is the use of drones for site surveys and inspections. Drones can quickly and accurately capture data, reducing the need for manual surveys and inspections, which can be time-consuming and resource-intensive. This not only saves time and money but also reduces the need for travel, thereby minimizing CO2 emissions.



## Sustainable Building Materials

In addition to digital tools, the construction industry is also focusing on sustainable building materials. One such material is Pratliperl, a lightweight, insulating, and fire-resistant building material made from recycled glass.

Pratliperl is an eco-friendly alternative to traditional building materials like concrete and brick. It is made from up to 80% recycled glass, reducing waste and conserving natural resources. Pratliperl also has excellent insulating properties, reducing the need for heating and cooling, thereby minimizing energy consumption and CO2 emissions.

Furthermore, Pratliperl is fire-resistant, providing an added layer of safety to buildings. It has a fire rating of up to four hours, making it an ideal material for high-rise buildings and other structures where fire safety is a critical concern.

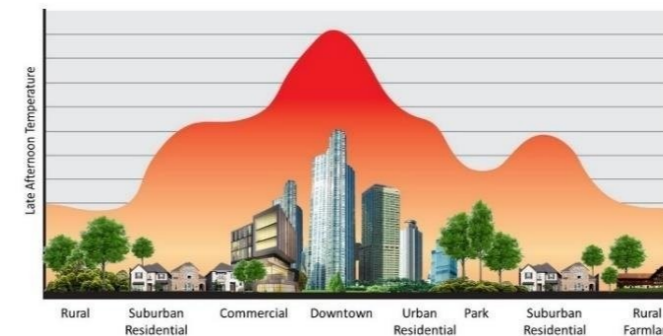


## Benefits of Sustainable Practices

The shift towards sustainable practices in South Africa's construction industry has several benefits. It not only reduces the industry's carbon footprint but also provides cost savings in the long run.

Sustainable building materials like Pratliperl have a longer lifespan than traditional materials, reducing the need for frequent repairs and replacements. They also provide better insulation, reducing energy consumption and costs.

Digital tools like BIM and drones also provide cost savings by reducing waste and minimizing the need for rework. They enable construction professionals to plan and execute projects more efficiently, reducing the time and resources required.



Building Information Modeling (BIM) is contributing to reducing CO2 emissions in South Africa's construction industry in several ways. BIM enables the creation of a digital model of a building, which can be used to simulate its energy consumption and identify areas where energy efficiency can be improved. By optimizing the design of the building for energy efficiency, BIM can help reduce CO2 emissions from the operation of the building.

In addition, BIM can help reduce CO2 emissions during the construction phase by enabling better coordination and planning of construction activities. This can help reduce waste and minimize the need for rework, which can result in significant energy savings.

BIM can also help reduce CO2 emissions in the maintenance and operation phase of a building by enabling better management of building systems and equipment. By optimizing the operation of building systems, BIM can help reduce energy consumption and CO2 emissions.



Moreover, BIM can contribute to reducing CO2 emissions in the construction industry by promoting the use of sustainable building materials. By providing detailed information about the properties and performance of different building materials, BIM can help construction professionals make more informed decisions about the materials they use. This can lead to the increased use of sustainable building materials, such as Pratliperl, which can help reduce CO2 emissions from the production and transportation of building materials.

In summary, BIM is a powerful tool that can help reduce CO2 emissions in South Africa's construction industry. By enabling better coordination, planning, and management of construction activities, BIM can help reduce waste and optimize energy consumption. Additionally, BIM can promote the use of sustainable building materials, which can help reduce CO2 emissions throughout the entire lifecycle of a building.



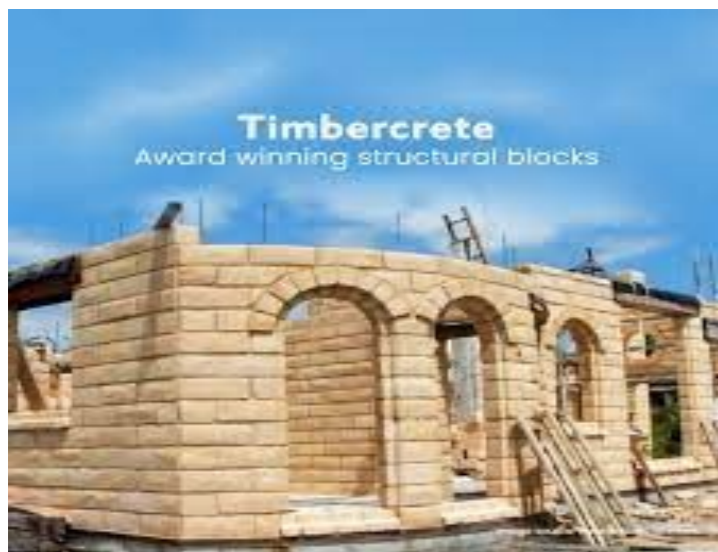
In South African construction, there are several other sustainable building materials commonly used besides Pratliperl. These include:

1. **Bamboo Composite Decking:** This is a highly durable and eco-friendly option made from recycled wood fibers, recycled plastic, and bamboo flour. It is versatile and can be used in various applications, including flooring, decking, siding, and furniture building.



2. **Cork Flooring:** Cork flooring is becoming increasingly popular due to its sustainability benefits. It is made from the bark of cork oak trees, which can be harvested without damaging the tree. Cork is a renewable resource, and cork flooring provides all the benefits of wood floors without cutting down trees.

3. **Timbercrete:** Timbercrete is a sustainable building material made from recycled timber and concrete waste in Australia. It is an alternative to conventional concrete bricks, with benefits including reduced carbon footprint and up to 70 percent less embodied energy. It can be used for interior and exterior walls, floors, and fences.



4. **Hemp-Lime Construction:** Hemp-lime is a combination of hemp and lime binders that can be used for plastering, construction, insulation, and furnishing homes. The mix is usually made up of hemp hurds (the inner woody core of the plant) and lime binder, but other ingredients could include water and additives to improve the properties of the final product.

5. **Reclaimed Wood:** Reclaimed wood is a sustainable option that many architects turn to minimize waste. Reclaimed wood comes from old barns, industrial structures, and demolished houses. This salvaged wood can be re-used if appropriately treated, creating a unique look with a lower environmental impact than brand new wood.

These sustainable building materials offer various benefits, including reduced carbon footprint, lower embodied energy, and improved indoor environmental quality. By using these materials, the South African construction industry can contribute to a more sustainable and eco-friendly future.



### Conclusion

South Africa's construction industry is increasingly focusing on sustainability, with an emphasis on eco-friendly practices. The use of digital tools like BIM and drones, as well as sustainable building materials like Pratliperl, is helping to reduce the industry's carbon footprint while providing cost savings in the long run. By embracing sustainable practices, South Africa's construction industry is not only contributing to the country's sustainability goals but also setting a positive example for the rest of the world.

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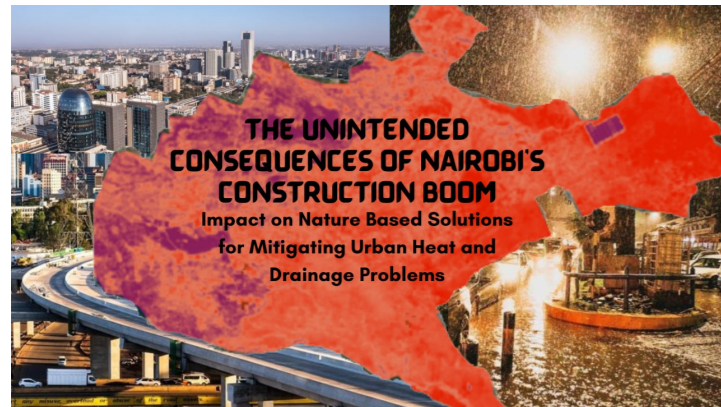
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# Nairobi's Building Boom: A Surge in Projects with Residential Development at the Forefront

Nairobi's skyline is witnessing a transformation. There's been a noticeable surge in construction projects being approved across the city, with residential development taking center stage. This positive trend indicates growth in the Kenyan economy and a growing demand for housing.

Apartment buildings, mixed-use developments, and standalone houses are sprouting up in various neighborhoods. This surge is likely fueled by a combination of factors, including urbanization, economic growth, and investment opportunities.



**Urbanization:** As Nairobi's population continues to grow, the need for more housing options increases. This is particularly true for affordable and mid-range housing units. According to the World Bank, Nairobi's population is expected to reach 6.5 million by 2030, up from 4.7 million in 2020. This growth will put pressure on the city's housing market, making it essential to increase the supply of affordable housing.



**Economic Growth:** A strengthening Kenyan economy translates to more disposable income, allowing residents to invest in homeownership. According to the Kenya National Bureau of Statistics, the country's GDP grew by 5.7% in 2021, up from 0.6% in 2020. This growth has led to an increase in demand for housing, particularly in Nairobi.

**Investment Opportunities:** The real estate sector is increasingly seen as an attractive investment option, further fueling construction activity. According to the Knight Frank Africa Report 2021, Kenya's real estate sector is expected to grow by 5.4% in 2022, up from 4.8% in 2021. This growth is driven by the increasing demand for housing and commercial spaces.



While residential development is leading the charge, there's also a rise in projects for commercial spaces and mixed-use developments. This suggests a growing need for office spaces, retail outlets, and integrated communities that cater to work-live lifestyles.

However, amidst this positive development, there are potential challenges to consider:

**Infrastructure Strain:** A rapid rise in construction projects could put a strain on existing infrastructure like water, sewage, and transportation systems. Careful planning and infrastructure development are crucial to ensure these projects are sustainable.

**Affordability Concerns:** While there's a surge in residential projects, ensuring affordability for middle-income earners remains a challenge. According to the World Bank, Kenya's housing deficit is estimated to be around 2 million units, with the majority of the demand coming from low and middle-income earners. Policymakers and developers need to work together to create solutions for a wider range of income brackets.

Overall, Nairobi's construction boom presents exciting opportunities for the city's growth and development. By addressing potential challenges and focusing on sustainable practices, this surge can translate into a thriving housing market and a more vibrant city for residents. The use of sustainable building materials, such as Pratliperl, can help reduce the carbon footprint of these projects while promoting eco-friendly construction practices. With careful planning and collaboration, Nairobi's building boom can lead to a more sustainable and prosperous future for its residents.



In Nairobi, Parklands, Westlands, Kilimani, and Kileleshwa are currently experiencing significant residential development. These neighborhoods are known for their profound growth, development, accessibility, and security, making them attractive locations for property investment and home living. Developers are increasingly focusing on these areas to cater to the rising demand for housing, particularly from the growing middle class. Additionally, the government's efforts to promote affordable housing and new regulations are expected to further boost residential development in these neighborhoods.



Westlands, one of Nairobi's most developed neighborhoods, has a robust infrastructure system that supports its residential expansion. The area has a well-established road network, including major roads such as Waiyaki Way, which connects Westlands to the city center and other parts of Nairobi. This makes it easy for residents to commute to work, school, or other destinations.

Westlands also has a reliable public transportation system, with buses, matatus, and taxis serving the area. The recent introduction of the Bus Rapid Transit (BRT) system has further improved the transportation infrastructure in Westlands, making it easier for residents to travel around the city.



The area has a well-developed water and sewage system, ensuring that residents have access to clean water and proper sanitation. The Nairobi City Water and Sewerage Company (NCWSC) provides water and sewage services to Westlands, and the area has a high coverage rate for these services.



Westlands also has a reliable power supply, with the Kenya Power and Lighting Company (KPLC) providing electricity to the area. The area has a high coverage rate for electricity, and the power supply is generally stable.

Furthermore, Westlands has a well-developed telecommunications infrastructure, with major telecom companies providing mobile and internet services to the area. This makes it easy for residents to stay connected and access information and services online.

In summary, Westlands' robust infrastructure system, including its well-established road network, reliable public transportation, water and sewage system, power supply, and telecommunications infrastructure, supports its residential expansion and makes it an attractive location for property investment and home living.



The Kenyan government is addressing infrastructure concerns related to Nairobi's construction boom through various strategies. Firstly, the government is leveraging public-private partnerships (P3) to develop a pipeline of infrastructure projects. This approach is expected to help close the existing infrastructure deficit, which requires a sustained expenditure of close to US\$4B over the next decade.

Secondly, the government is improving the legal framework to encourage private sector participation in the infrastructure sector. This has resulted in a renewed P3 law, better government capacity to manage P3s, and an interest in developing a strong pipeline of P3 projects.

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# Addressing Challenges in Kenya and South Africa's Construction Boom: Safety Trends and Collaborative Solutions

The construction sectors in Kenya and South Africa are experiencing positive growth, driven by infrastructure development and a burgeoning demand for residential and commercial properties. However, ensuring the safety of workers and the public is a critical concern that requires focused attention. Here, we explore the safety trends and emerging challenges in both countries, highlighting commonalities and potential areas for collaboration.



## Kenya: Embracing Technology and Enhanced Training

In Kenya, the emphasis on safety training has gained momentum, with authorities and industry stakeholders recognizing the importance of a skilled workforce. Training programs now focus on safety protocols, hazard identification, and emergency response. This renewed focus aims to reduce the high rate of construction-related accidents and fatalities.

Another noteworthy trend in Kenya is the adoption of technological advancements to improve safety. Drones are increasingly used for site inspections, allowing for detailed aerial views of construction sites, which can help identify potential hazards early. Virtual reality (VR) is also being leveraged for safety training, providing workers with immersive experiences to understand safety risks without exposure to real danger.

These technological tools, combined with improved training, contribute to a safer construction environment. However, challenges remain, particularly in ensuring compliance with safety regulations and encouraging a culture of safety across the industry.



## South Africa: Tackling Organized Crime and Strengthening Regulations

South Africa's construction sector faces a unique safety challenge in the form of "construction mafia" groups. These organized groups often demand a share in construction projects, leading to intimidation, violence, and even project disruptions. This environment poses a significant threat to worker safety and project continuity.

Law enforcement agencies in South Africa are intensifying efforts to dismantle these groups, recognizing the importance of a secure and safe construction industry. Alongside these efforts, South Africa is focusing on stricter safety regulations and improved enforcement mechanisms. The goal is to hold violators accountable and ensure that safety standards are consistently met across the industry.

Additionally, South Africa is working to enhance workplace safety through more robust safety training programs and by encouraging the use of personal protective equipment (PPE). This approach seeks to create a culture where safety is a top priority, not an afterthought.

## Common Concerns and Collaborative Solutions

Both Kenya and South Africa share common safety concerns, particularly regarding the consistent use of PPE and the need for better communication and collaboration on construction sites. Regular safety briefings and fostering a culture of reporting unsafe practices are key strategies for preventing accidents and injuries.



The potential for collaboration between the two countries is significant. Kenya could benefit from South Africa's experience in dealing with organized crime, while South Africa could draw insights from Kenya's focus on technological advancements and safety training. Additionally, developing regional safety standards for the East and Southern African construction industry could ensure a consistent and high level of worker protection across the continent.



## Building a Safer Future for Construction Workers

By prioritizing safety through training, regulations, and collaboration, Kenya and South Africa can ensure that their construction booms lead to sustainable and positive development. Addressing safety challenges is crucial not only for the well-being of workers but also for the overall success and reputation of the construction industry. With concerted efforts, these countries can set a benchmark for safety practices in the African construction sector, creating a safer and more resilient industry for all stakeholders.





# Manual Materials

## Handling

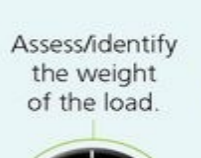
[MMH] is the most common cause of occupational fatigue and lower back pain



### before lifting



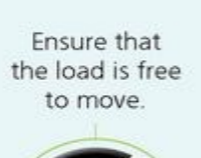
Check to see if mechanical lifting aids are available.



Assess/identify the weight of the load.



Get help with heavy or awkward loads.



Ensure that the load is free to move.



Ensure that you can lift the load without over-exertion.

Check that the path is clear and free of grease, oil, water, and objects.



### safe lifting tips



Prepare for the lift by warming up your muscles.



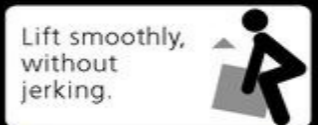
Stand close to the load and face the direction you intend to move.



Be sure you have a good grip on the load.



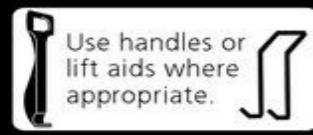
Keep arms straight and abdominal muscles tight.



Lift smoothly, without jerking.



Avoid twisting, side bending, and carrying loads with only one hand.



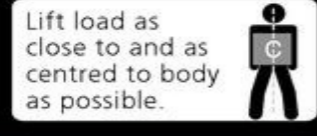
Use handles or lift aids where appropriate.



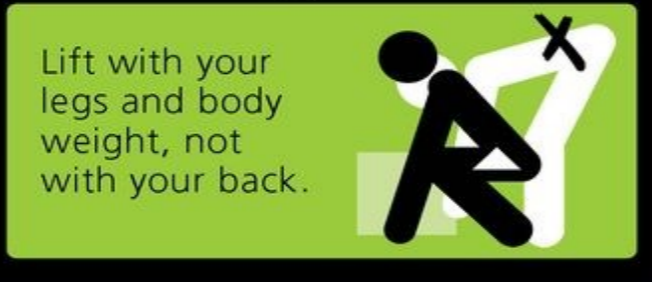
Tuck chin into your chest.



Keep your back straight and butt out.



Lift load as close to and as centred to body as possible.



Lift with your legs and body weight, not with your back.

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