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FIA FOUNDATION

NATIONAL HELMET WEARING COALITION

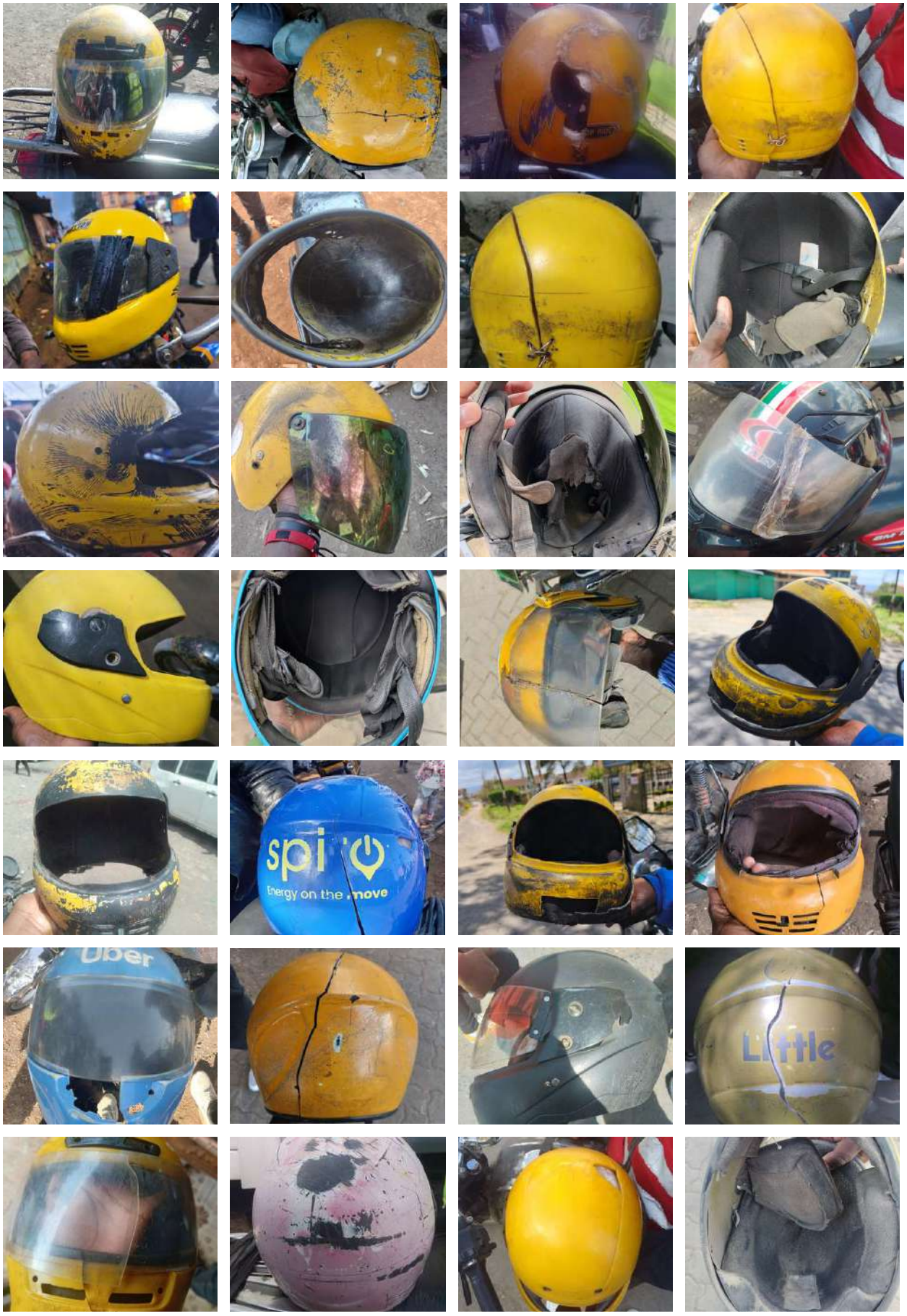


STUDY:

AN INVESTIGATION INTO MOTORCYCLE HELMET QUALITY IN KENYA

June 2026

A selection of damaged helmets currently in use in Kenya



EXECUTIVE SUMMARY

Introduction

This study investigates the degree to which helmets currently in use in Kenya are compliant with the national standard, and proposes actions needed in order to achieve increased compliance among motorcycle users.

The rapid growth in commercial motorcycle use in the Africa Region has contributed to a 17% increase in road fatalities over the last decade (WHO, 2023). In Kenya, where the number of registered motorcycles is estimated to be more than 2.5 million nationwide, the National Road Safety Action Plan, launched in 2024, identified the need to improve helmet testing to address non-compliance, by establishing a testing laboratory by 2028.

Kenya introduced a national helmet standard in 2012 (KS 77:2012), however, a lack of helmet testing capacity has been identified as a constraint to effective enforcement of the standard. Recent moves to gazette the UNECE 22.06 standard raises concerns that achieving full compliance may be even more of a challenge given the lack of an established helmet supply chain compliant with this standard, and the expected affordability issues for motorcycle users.

Approach

Two parallel assessments of each rider's helmet were conducted. The first, carried out by a technical expert, examined images taken of each helmet to determine the proportion of helmets in use which claimed certification by a recognised standards body. Up to eight photographs of each helmet belonging to more than 1,000 riders surveyed were taken using smartphones.

The second assessment was conducted by researchers with experience of helmet safety work who underwent helmet assessment training. This assessment was to determine compliance based on the condition of each helmet.

The findings of the survey allowed the project team to identify the most commonly used helmets claiming certification, a selection of which were tested to the KS 77:2012 and UNECE 22.06 standards at an accredited laboratory in Milan, Italy. Each helmet underwent testing for helmet stability, retention system strength, impact and rigidity. Based on this information, the project team were able to estimate the level of helmet compliance in Kenya.

Findings

The socio-demographic and economic information from the 1,071 riders surveyed revealed that 79% of riders were 18-35 years and only 1% were women confirming that as expected, this industry continues to be dominated by young men.

Only riders with helmets were approached to participate in this survey and of these, only 12% were carrying a second helmet for pillion passengers, despite this being a legal requirement.

The findings showed that 85% of riders were willing or able to pay up to 16 US Dollars per helmet, which should be a critical consideration guiding any planned introduction of improved helmet standards.

Based on the images alone and a knowledge of which makes and models carry a certification mark, 85% of the helmets assessed were deemed compliant. However, a closer inspection conducted by the researchers, which took into account missing certification marks, inadequate liner thickness, faulty chin straps and shell/visor damage, revealed that only 49% were considered to be providing adequate protection to a level similar to their original certification, with 18% in need of replacement.

Helmets from 57 different manufacturers were identified with the top six most popular brands representing 82% of the total. A selection of the most popular helmets representing 68% of the 1,071 assessed with each claiming certification, underwent testing at an independent laboratory to both the KS 77:2012 and UNECE 22.06 standards.

Despite claiming certification all helmets failed the testing requirements for both standards. In the case of one of the imported products, the variation between helmets of the same make and model suggested that faulty products are entering the Kenyan market, indicative of suspected product dumping.

On the basis of the tests alone, the estimated level of non-compliance was revised to at least 68% of helmets in use emphasising the need for urgent action.

Actions Required

Government:

- The capacity to enforce the standard via the establishment of a helmet testing laboratory should be prioritised and implemented in line with the National Road Safety Action Plan.
- Mandatory helmet standards must be relevant to the country context and consideration given to the cost of each helmet. This study failed to identify any helmets aligned to the UNECE 22.06 standard, suggesting that improving compliance with KS 77:2012 should be prioritised before considering the adoption of the UN standard.
- More stringent enforcement of the Pre-Shipment Verification of Conformity certification process would reduce the export of sub-standard helmets to Kenya.
- More rigorous market surveillance should be conducted by KEBS targeting importers, retailers and local manufacturers, to better enforce compliance with the helmet standard.
- Greater priority should be given to street level enforcement to improve helmet prevalence for both riders and passengers, and use of helmets compliant with the standard required.
- Better use of the Kigali-based testing laboratory would address the shortfalls in helmet testing capacity in Kenya and improve compliance amongst Kenyan-based helmet manufacturers, or greater onus on them providing independent third party certification should be a requirement.

Private sector:

- Importers, manufacturers and helmet retailers must ensure compliance or expect punitive action, as should employers who should commit to providing certified helmets to their riders.
- Support to local manufacturing capacity will help reduce the cost of helmets to riders but manufacturers must expect greater scrutiny from enforcement agencies.

Riders and rider associations:

- Building back trust in KEBS certified helmets amongst riders should be actioned to ensure that riders and their passengers can rely on access to lifesaving compliant helmets in future.

Conclusion

This study reveals that the majority of helmets that riders consider to be providing adequate protection are not compliant with either the KS 77:2012 or the UNECE 22.06 helmet standards, putting riders lives at risk.

With growing attention on the number of preventable lives lost linked to motorcycle use in Kenya, efforts to reduce the loss of life must be prioritised with immediate action required by the government and the private sector.



INTRODUCTION

Africa Context

Over the past decade, road traffic fatalities in Africa have risen by 17% in contrast to a global decline of 5%. In sub-Saharan Africa, this trend is in part linked to the rapid growth in the use of commercial motorcycles and the associated safety risks for this mode of transport (WHO, 2023).

A recent study has highlighted a growth in the number of hospitalisations amongst motorcycle crash victims suffering head injuries. In Nairobi, more than a third of hospitalisations were shown to be due to head injuries, linked to low helmet prevalence or the use of poor quality, sub-standard helmets (Nyachieo, 2024).

Recognising this trend in several African countries, the Safe African Helmets Initiative (SAHI)[1] has placed a spotlight on motorcycle helmet safety since its inception in 2024 and continues to emphasise the need to introduce appropriate helmet standards which mandate the use of helmets certified by their respective standards agencies.

There is still much progress to be made in achieving this objective. Only a minority of African countries currently have mandatory helmet standards with minimum performance specifications, and where standards do exist, significant challenges persist in enforcing the standard due in part to a lack of testing capacity.

At present, Rwanda is the only country in sub-Saharan Africa with the capacity to conduct helmet testing in accordance with an internationally recognised standard (UNECE 22.05), having established a helmet testing laboratory housed within the Rwanda Standards Board in 2024.

Kenya Context

Kenyan legislation, notably the Traffic Act (2012) and the National Transport and Safety Authority (Operation of Motorcycles) Regulations (2015) are considered to be robust, clearly mandating the use of helmets for all motorcycle users, as well as being linked to the national helmet standard, making it an offence to import, sell or provide for use, helmets which are non-compliant. However, challenges remain in enforcing the legislation.

The Kenyan National Road Safety Action Plan (2024-2028) recognises this challenge, and as a response, the government aims to establish its own helmet testing laboratory by 2028, a move which will benefit other countries in the region given that most helmets in use are currently imported and enter East Africa via Mombasa port.

Whilst Kenya has had a national helmet standard in place since 2012 (KS 77:2012), its lack of testing capacity has limited its ability to adequately enforce this standard. Recent moves to gazette an improved motorcycle helmet standard (UNECE 22.06) make influencing full compliance even more difficult when taking into account the lack of an established supply chain of helmets compliant with this new standard, and the anticipated challenges from an affordability point of view that riders will face in purchasing compliant helmets.

As the number of motorcycle taxis, known locally as boda bodas, continues to grow rapidly, with an estimated 2.5 million registered motorcycles providing over 20 million passenger journeys daily, there is an urgent need to address non-compliance by improving helmet testing capacity to adequately enforce the helmet standard, thereby enhancing rider and passenger safety and reducing the preventable loss of life on Kenya's roads.



[1] The Safe African Helmets Initiative (SAHI) is led by the FIA Foundation and provides a platform through which participating African countries and development partners are able to share experiences, discuss challenges, and build consensus on the urgent need to combat the rise in deaths and serious injuries related to motorcycle crashes in Africa.

APPROACH

This study was conceived by the Kenyan National Helmet Wearing Coalition, and responds to a lack of available data in Kenya on helmet quality. It aims to determine the quality of helmets currently in use, and their level of compliance with the national standard. It presents an opportunity to engage with riders, for them to learn about helmet quality while highlighting some of the challenges they currently face. It also suggests actions needed to optimise the impact of helmet testing in the short, medium and long term. The results constitute a baseline against which progress can be measured once the helmet testing laboratory in Kenya becomes operational.

Between 1st September and 11th December 2025, the total number of riders that participated in the survey was 1,071, predominantly from Nairobi but with some riders participating in Mombasa and Kisumu. The surveys were conducted by members of the National Helmet Wearing Coalition and the Multimedia University of Kenya's Road Safety Club who underwent basic training in conducting a helmet assessment.

In determining the quality of helmets currently in use, three parallel phases to this study were implemented.

I. Researchers selected and engaged with riders on the street specifically targeting riders who owned helmets. Up to eight photographs of each helmet were taken (at different angles) using smartphones to create a bank of images of helmets in use by riders. Based upon a knowledge of makes and models of helmets claiming certification, these images were assessed remotely by a technical expert who was able to determine a preliminary level of compliance i.e. those helmets claiming certification from a recognised standards body.

II. Using a tailored data collection tool, the researchers surveyed the riders, and conducted an on-site assessment of each helmet based on it's condition taking into account factors such as the thickness and damage/deterioration of the energy absorbing liner, chin strap functionality, and damage to the shell and the visor. The conclusion of each assessment was inevitably subjective to a certain extent despite the training received.

III. After identifying the makes and models of each helmet assessed, in January 2026, multiple units of a selection of six of the most popular brands were purchased in Kenya to undergo testing at an independent testing facility in Milan, Italy.[2] The testing was overseen by a delegation from the Kenya Bureau of Standards and the National Transport and Safety Authority. All six helmets claimed certification to either the KS 77:2012 or the IS 4151:2015[3] standards, and were tested according to KS 77:2012, UNECE 22.05 and UNECE 22.06 to determine whether they were compliant or not.



[2] Newton Labs, Milan, Italy, is an independent ISO 17025 accredited helmet testing laboratory capable of performing compliance testing to UNECE Regulation 22.05 and 22.06 for motorcycle protective helmets.
[3] Bureau of Indian Standards. (2015). IS 4151:2015 – Protective helmets for two-wheelers (Specification).

FINDINGS

The findings of this study include: the socio-demographic and economic profiles of motorcycle taxi riders, their riding experience, helmet ownership, and the characteristics of the helmets they use, including the cost, helmet age, and the helmet's status, i.e. whether or not the helmet is compliant or non-compliant, or is in need of replacement.

As required by the principles and practice of research, it is worthy to note that 100% of the study participants gave consent to participate in the study with a total sample of 1,071 participants representing a cross-section of riders in Kenya.

Rider Age

Riders require a class A2 licence to operate anything larger than a 50cc motorcycle in Kenya, with a minimum age of 18 years. Of the 1,071 riders participating in this study, no riders were under the age of 18, and only 2.4% of the riders were under the age of 21. According to Article 260 of the 2010 Kenyan Constitution, individuals between the ages of 18 and 35 are classed as young adults with 79% of study participants falling within this age range. This distribution confirms that the commercial motorcycle taxi industry is still very much dominated by young adults, indicating that this sector continues to be an important vehicle for youth economic empowerment.

Rider Gender

The industry remains highly gendered with 99% of study participants identifying as male[4]. This aligns with information provided by the National Transport and Safety Authority which states that less than 1% of registered motorcycle riders are women, indicating that barriers to women joining this workforce persist, despite anecdotal evidence that the number of women riders is increasing due to economic necessity.

Rider Experience

Rider experience, measured by the number of years that they have been working as a motorcycle taxi rider, indicates that the workforce is maturing with the majority of riders (54%) having more than five years' experience. The second largest group, riders having two to five years' experience (31%), may link to the significant growth the sector experienced during the COVID-19 pandemic, when transport restrictions increased demand for motorcycle taxis where other options were limited (Peters et al., 2022).

With an estimated 2.5 million motorcycles registered in Kenya, this industry continues to show rapid growth with a reported 6% of riders having less than one year of riding experience, which if extrapolated as a general trend equates to an estimated 130,000 new riders in the last year.



[4] YNA. (2025). Women empowerment in Kenya's boda boda sector.

Helmet Ownership

Kenyan law requires that all motorcycle riders and pillion passengers wear a helmet and that it is the rider's responsibility to provide a helmet for the passenger's use.[5] This study specifically targeted riders with helmets however, it recognises that ownership of a helmet for the passenger is not necessarily indicative of helmet utilisation. A recent study specific to Nairobi indicated that helmet use amongst riders was 63%, a figure which is likely to be considerably lower outside of Kenya's capital city (Nyachieo, 2024).

Nyachieo's study (2024) also highlighted a staggeringly low level of helmet use amongst pillion passengers (15%), the findings of which were supported in this study with only 12% of riders surveyed seen to be carrying an extra helmet for passengers. This is despite it being a requirement by Kenyan law to carry a spare helmet.[6] This may or may not be seen as a trade off by the rider which deprioritises the purchase of helmets for passengers due to affordability constraints, or equally, a lack of willingness on the part of pillion passengers to wear a helmet provided by the operator, which might also be linked to minimal enforcement and therefore a reduced incentive to comply.

Helmet Age

For the purpose of this study, the expected lifespan of a helmet was estimated to be between four and five years (SHARP, n.ds.). Rider participants were asked to estimate how long ago their helmets were purchased with a view to determining the age of the helmet and therefore its effectiveness in providing protection to the rider. Eighty-nine percent of riders reported having owned their helmets for a maximum of three years, with 11% having owned their helmets for four or more years.

Kenyan law requires the provision of two helmets with every motorcycle purchased which constitutes Kenya's 'primary market' for helmet sales, whereas the purchase of helmets separately from retailers constitutes Kenya's 'secondary market' for helmet sales.

It is assumed, though worthy of further investigation, that the majority of helmets in use are those supplied during the purchase of the motorcycle, however, confirming this is complicated by the fact that many riders do not own their motorcycles, and it is common for two or three riders to take turns operating a single bike (Peters et al., 2022).

It is also the case that the KS 77:2012 standard requires that all helmets clearly indicate the week and year of manufacture, however, none of the helmets evaluated by the researchers showed this information. This supports the need to develop more rigorous protocols to monitor and confirm compliance with the KS 77:2012 standard.



[5] Republic of Kenya, Traffic Act, 2012, Section 103B(1).
[6] Republic of Kenya, Traffic Act, 2012, Section 103B(2).

Table 1: Cross-tabulation Comparing Rider Experience and Helmet Age

Rider experience	Age of helmet (based on the year that the rider acquired the helmet)				
	< 1 Year	1 - 3 Years	4 - 5 Years	> 5 Years	Total
Less than 1 Year	43 (72.9%)	14 (23.7%)	2 (3.4%)	0 (0.0%)	59
1 - 2 Years	52 (48.2%)	52 (48.2%)	3 (2.7%)	1 (0.9%)	108
2 - 5 Years	104 (31.6%)	205 (62.3%)	18 (5.5%)	2 (0.6%)	329
5 - 10 Years	144 (31.9%)	248 (55.0%)	46 (10.2%)	13 (2.9%)	451
More than 10 Years	25 (20.5%)	62 (50.8%)	18 (14.8%)	17 (13.9%)	122
Total	368	581	87	33	1069*

*Two riders failed to answer this question.

Cross-tabulation of the data comparing rider experience with helmet age indicates that regardless of the number of years riding a motorcycle taxi, the vast majority of helmets are less than three years old, which could indicate an understanding of the need to replace helmets periodically, suggesting that in fact many riders do purchase helmets separately.



Helmet Cost

The cost of helmets is an important consideration influencing rider compliance and varies depending on which standard is used. The technical requirements of a given standard influence manufacturing and other related costs such as transportation, which in turn influences the retail price at point of sale. If the resulting cost to the rider exceeds what he or she is willing or able to pay, helmet uptake can be expected to remain limited (Global Alliance of NGOs for Road Safety, 2025). In addition, the sale of low cost uncertified and unsafe helmets will also rise as riders purchase helmets not for safety reasons but in order to avoid a traffic fine.

The findings from the survey showed that 16 USD appears to represent the highest cost that most riders (86%) are willing or able to pay, with the largest group (50% of riders) paying between 8-16 USD for their helmets.

One percent of riders paid nothing for their helmets, indicating that the rider may have been gifted or donated a helmet, or it may have been provided by the owner of the motorcycle at the time of purchase.

The study found that a minority of riders (14%) paid more than 16 USD with only 3% of riders purchasing helmets at a unit cost of between 39 and 70 USD.

Table 2: Helmet Cost

Helmet Cost (Ksh)	Helmet Cost (USD)	Number of Riders	Percent
0	0	11	1%
1 - 1,000	<8	375	35%
1,001 - 2,000	8-16	538	50%
2,001 - 3,000	16-23	78	7%
3,001 - 5,000	23-39	46	4%
5,001 - 9,000	39-70	23	3%
Total		1071	100%



Helmet Comfort

With respect to helmet wearing comfort, 85% of riders reported that the helmet fit was acceptable with 15% reporting that their helmet was too loose and therefore not the correct size for their head. This observation implies that according to most riders, the helmets on sale in Kenya currently fulfil the requirements in terms of helmet fit.

Similarly, the majority of riders (75%) reported that the retention system, or chin strap, was acceptable, allowing the rider to adjust the strap to the length needed to ensure that the helmet is properly secured on the rider's head, without which the helmet cannot be considered to fully protect the rider's head. Kenyan law mandates the use of a chin strap when operating or riding on motorcycles.[7]

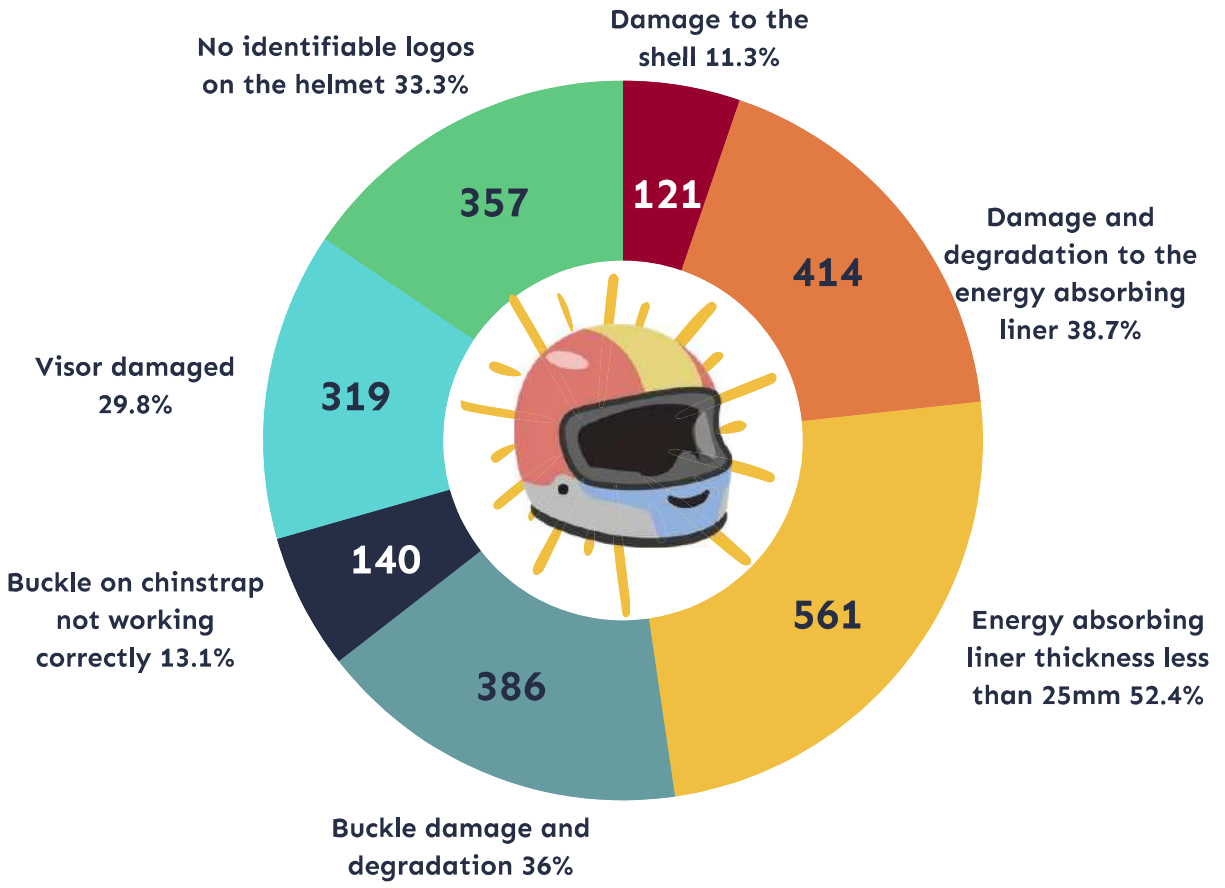
Helmet Condition

Central to this study is the assessment of helmet condition as presented, which determines whether each helmet is able to perform its intended protective function.

In determining the current protective capability of the helmets during the in-situ assessment, a number of indicators were considered: visible damage to the outer shell; degradation of the helmet's energy absorbing liner; liner thickness (>25 mm thickness being a rudimentary indicator of compliance); damage and degradation to, and functionality of the retention system; visor damage or absence and, finally; the presence of identifiable labelling or logos which indicate certification by a relevant standards authority. Together, these indicators were assessed to determine whether the helmet was compliant, non-compliant or in need of replacement.

The most commonly reported concerns related to the condition of the impact absorbing liner with 39% of helmets having a damaged or degraded liner; 36% of helmets showing damage to the buckle on the chin strap, compromising the riders' ability to correctly fasten the retention system (although only 13% of riders reported the buckle

Graph 1: Characteristics of Helmets as reported by participants



[7] Kenyan law requires riders and passengers to wear helmets (Traffic Act, Cap. 403. 2012. Section 103B), and the NTSA's Operation of Motorcycles Regulations (2015) clarify that helmets must be worn properly fastened, providing the legal basis for enforcement of chin strap use.

to be non-functional); and 30% of helmets exhibited damage to the visor. However, the liner in 52% of helmets was considered to be of inadequate thickness (less than 25 mm), strongly suggesting non-compliance with the impact test requirements for the national helmet standard (KS 77:2012).

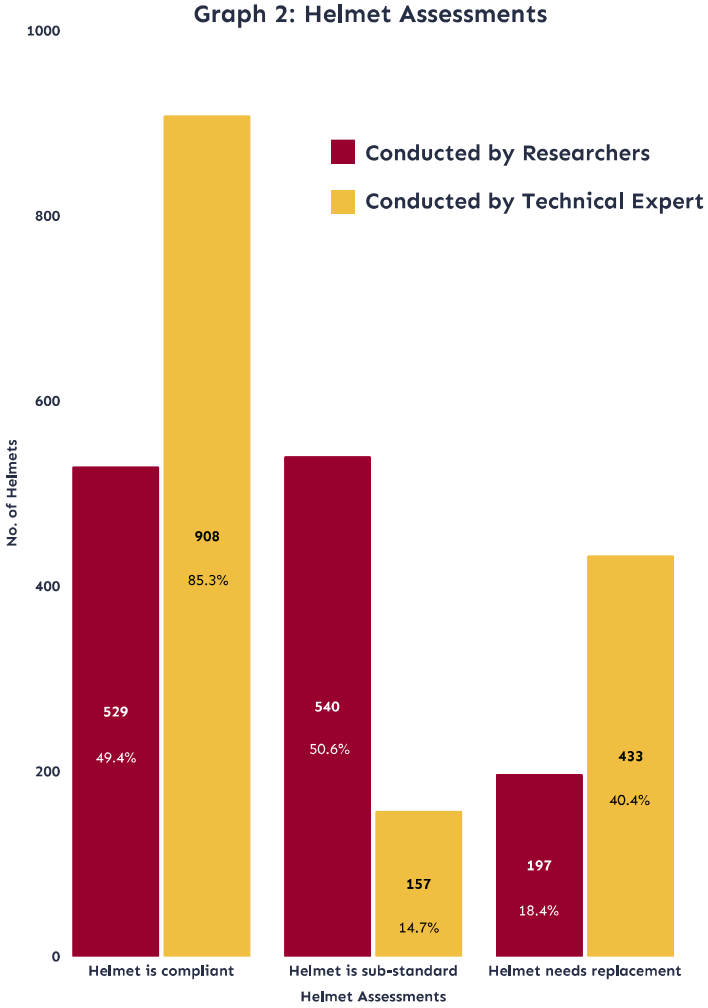
The high proportion of helmets reported to have no identifiable logos or branding (33%) and the assumption that these helmets are not certified reinforces the need to strengthen documentation relating to Kenyan-made and imported helmets.

The KS 77:2012 standard requires clear demarcation of the helmet manufacturer and the helmet model; however, it should be noted that external branding alone does not necessarily imply compliance. In retrospect, photographs of internal labels and certification markings inside the helmet should be systematically captured as a means of determining whether a helmet is certified or not.

Helmet Assessment Results

The images of the 1,071 helmets recorded allowed the team's technical expert to identify the make and model of each helmet based on a knowledge of the helmet design shapes, fixtures and fittings unique to certain brands of helmets.

Graph 2: Helmet Assessments



Based on previous experience of which makes and models are known to claim certification with a relevant standards authority, the technical expert was able to conduct a preliminary assessment which concluded that 85% of helmets claimed certification and therefore were compliant. It should be pointed out that this conclusion did not take into account the condition of the helmet and the functionality of various elements of the helmet's construction.

An in-situ physical assessment of each helmet conducted by the researchers identified a higher level of non-compliance based on helmet condition/functionality concluding that 49% of the helmets were compliant.

Interestingly however, in the opinion of the technical expert, 40% of helmets were in need of replacement compared to 18% concluded by the researchers. This is unsurprising considering the fact that the researchers' conclusion of which helmets were compliant and which weren't took into account the condition of the helmet, whereas the technical expert's conclusion was based on whether the helmet was in a similar condition compared to when it was originally sold (i.e. the visor and retention system were functional and present and the energy absorbing liner was undamaged).

From the sample of helmets assessed, the most popular type of helmet amongst motorcycle taxi riders is full face (57%), followed by open face (34%), and modular (6%). Worryingly, there is evidence of helmets designed for use in baseball, cricket, and equestrian sports, as well as bicycle helmets being used by riders and passengers.

In total, helmets from 57 different manufacturers were identified while 4% of helmets were from an unknown manufacturer. For helmets claiming certification, the most common standard was to KS 77:2012, representing 51% of helmets; 27% certified to IS4151:2015; 8% certified to DOT; and 7% certified to UNECE 22.05. This indicates that the vast majority of helmets currently on the Kenyan market are claiming compliance to at least one internationally recognised motorcycle helmet standard.

Table 3: Helmet Types

Helmet Type	No. of helmets	Percent
Baseball	1	0.1%
Bicycle	4	0.4%
Cricket	1	0.1%
Equestrian	1	0.1%
Full face	615	57.3%
Half	17	1.6%
Modular	63	5.9%
Open face	363	33.8%
Unknown	6	0.7%
Total	1071	100%

Table 4: Top Six Most Popular Helmet Brands

Manufacturer	Frequency	Percent
Boda +	506	47%
Deletion	179	17%
Steelbird	59	6%
Captain	45	4%
Aaron	43	4%
TET	43	4%
Other	150	14%
Unknown	47	4%

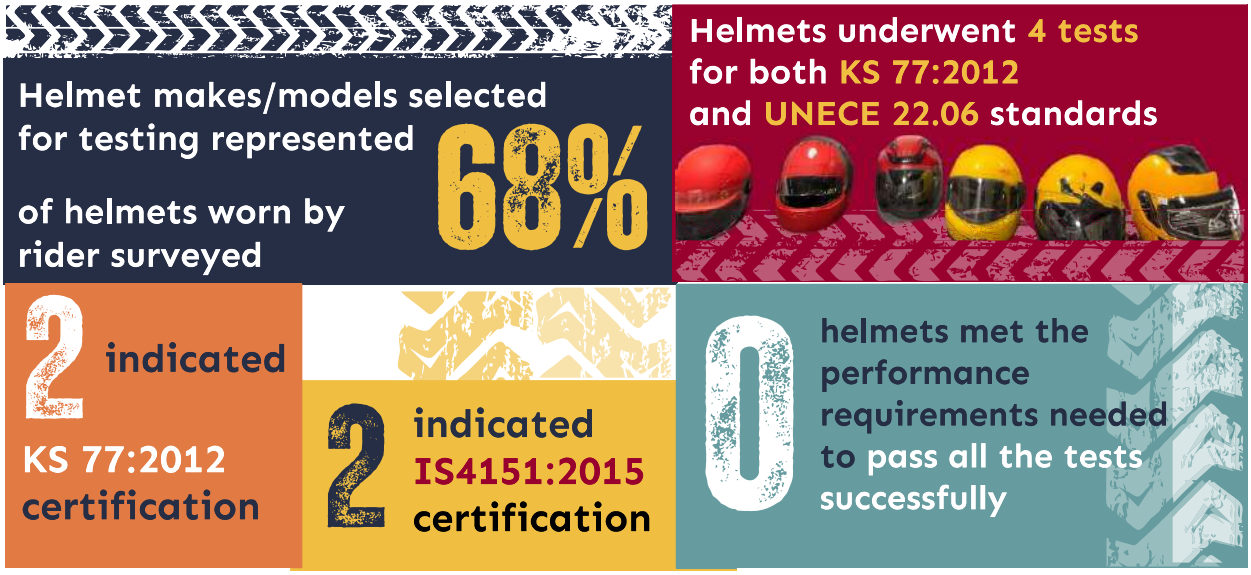
Importantly, bearing in mind the recent gazetting of KS ARS UNECE R 22:2002, which aligns most closely with the UNECE 22.06, as a minimum helmet standard in Kenya, no helmets in the study were found to claim compliance to this standard. This highlights the challenges that may arise in achieving widespread compliance with this new standard in Kenya.

A widespread shortage of compliant helmets in the country, combined with the challenges of supplying them at an affordable price, could encourage the use of counterfeit labels and purchase of counterfeit helmets if the requirements to comply misaligns with riders' ability to purchase helmets meeting the newly gazetted standard.

Helmet Testing

Following the completion of the data collection in December 2025, the third phase of the study took place in January 2026 and involved testing helmet brands that were most prevalent in the dataset and widely available in Kenya. The helmets selected represented 68% of the 1,071 helmets previously assessed. Testing was conducted at a ISO 17025 accredited helmet testing laboratory in Milan, Italy, capable of performing both KS 77:2012 and UNECE 22.06 compliance tests, the two standards relevant to Kenya.





Testing was attended by representatives from the National Transport and Safety Authority and the Kenya Bureau of Standards.

Each helmet underwent a helmet stability test, retention system strength test, an impact test, and a helmet rigidity test. All Kenyan-made helmets carried KS 77:2012 certification labels and all imported helmets carried IS 4151:2015 certification marks (the retention system strength, helmet stability and helmet rigidity tests for the IS 4151:2015 standard are the same as those for UNECE 22.05).

Despite the fact that all helmets tested claimed certification, all but one of the Kenyan-made helmets failed all of the tests conducted, and all imported helmets failed every test. It is important to note that a helmet must meet ALL the performance requirements of a given standard in order to be considered fully compliant with the standard. Therefore, based on these results, none of the helmets were considered to be fully compliant.

The failure of Kenyan-made helmets to pass the tests conducted can in part be attributed to the lack of in-country testing capacity and the absence of reliable mechanisms to verify compliance beyond visual inspections. The absence of markings required by the KS 77:2012 further suggests that the current visual assessment procedures need to be strengthened.

Similarly, the failure of imported helmets to comply with IS 4151:2015 indicates the need for greater rigour in verifying the quality of helmets in the country of manufacture before export to Kenya. Variation between individual helmets of the same make and manufacturer submitted for testing indicates suspected product dumping, whereby sub-standard or faulty products are deliberately exported to the Kenyan market, taking advantage of the lack of domestic testing and verification capacity.

These test results indicate that the estimates of compliance generated by both the researchers and the technical expert clearly underestimate the actual level of non-compliance. This is unsurprising, as subjective judgment can be influenced by performance bias, particularly toward brands displaying certification marks.

Based on the assumption that the most popular brands used by riders in this study were representative of helmet trends nationwide, it is therefore possible to revise the previous estimation of the proportion of non-compliant helmets in use in Kenya.

Based on the KS77:2012 and IS4151:2015 compliance testing performed at an independent ISO 17025 accredited helmet testing laboratory, this study concludes that an estimated 68% of helmets currently in use in Kenya are non-compliant.[8] It is possible to expect that the true proportion of non-compliant helmets could however, be even higher. It should be noted that a limited number (four) of each helmet model was evaluated, and it is recommended that a larger number of samples of each helmet be tested to confirm this finding.

[8] This number is based on the percentage of known manufacturers of helmets that were observed in our study. All models from these manufacturers claimed to meet KS 77:2012 and IS 4151:2015 but were tested and found to fail to meet the performance requirements of both standards.

RECOMMENDATIONS

GOVERNMENT ACTION:

I. Prioritise the establishment a helmet testing laboratory to stem the flow of non-compliant helmets to Kenya.
This study highlights the urgent need to improve in-country testing capacity aligned the National Road Safety Action Plan which aims to establish a helmet testing laboratory in Kenya by 2028. Achieving this requires commitment to an implementation timeline, increased inter-ministerial coordination and efforts to address any shortfalls in technical capacity.

II. Implement a helmet standard which is enforceable, relevant to country context, and which does not compromise the safety of riders.
This study highlights the challenges in gazetting a helmet standard, in Kenya's case KS ARS UNECE R 22:2002, given the lack of an established supply chain of affordable, compliant helmets. Further engagement with key stakeholders is needed to assess the implications of this recent change, and whether retaining the ability to revert to KS77:2012 or an earlier version of ECE22 (i.e. ECE 22.05) as a mandatory minimum standard could be considered before transitioning to another helmet standard.

III. Employ more stringent enforcement of Pre-shipment Verification of Conformity certification.
While contracts are in place with agents in countries which export helmets to Kenya, non-compliant products continue to be imported which implies the need for improvement and more stringent enforcement of penalties linked to the Pre-shipment Verification of Conformity certification process. Unqualified products should not be permitted access to Kenya's markets under any circumstances.

IV. Build market surveillance capacity to support improved compliance by the private sector.
Work with KEBS' market surveillance team to target importers, retailers, local manufacturers and employers more effectively to enforce compliance with the helmet standard as well as raising the awareness to ensure they have a full understanding of what constitutes a compliant helmet. Surveillance teams should be verifying certification rather than relying on recording helmets at face value, building a traceability pathway.

V. Strengthen street level enforcement of helmet prevalence and standard compliance.
This study points to continued low levels of use in particular by passengers with a minority of riders carrying helmets for their passengers. Stronger enforcement on the part of traffic police will in time influence greater use of helmets and ensure that helmets are worn correctly.

V. Make use of the Rwanda-based testing facility to confirm compliance of Kenyan-made helmets prior to establishing the testing lab in Kenya.
A more rigorous approach to certification of Kenyan-made helmets to reduce dependence on visual inspections is needed as Kenya establishes its own helmet testing facility. Closer links with the Rwanda Standards Board with an agreement to test helmets at their helmet testing facility in the short term presents a possible solution. In addition, a regulation could immediately be put in place that would require all helmet manufacturers to provide a test report from an independent third party testing laboratory showing compliance to the KS 77:2012 standard.

VI. Improve data collection relating to motorcycle helmet prevalence.
Consider how the use of technology such as AI can contribute to more effective data collection in a low resource setting. Trials in other countries have successfully used AI to enforce helmet prevalence generating greater revenues for enforcement agencies, and AI capability is currently being explored to recognise compliant versus non-compliant helmets.

PRIVATE SECTOR ACTION:

VII. Importers, retailers, local manufacturers, and employers must commit to improving compliance.
It is the responsibility of the private sector and its representative bodies to promote compliance with the national helmet standard and to only provide compliant helmets to riders and motorcycle owners. Greater transparency and a closer working relationship with KEBS is to be encouraged.

RIDER AND RIDER ASSOCIATION ACTION:

VIII. Demand improved affordable access to compliant helmets.
Riders could be said to have been failed by the improper certification of helmets and will need to rebuild trust with KEBS-certified helmets, ensuring riders and their passengers can rely on access to lifesaving compliant helmets in future. Equally, rider associations have an important role to play in exploring ways to provide more affordable access to compliant helmets for their riders.

CONCLUSIONS

The objective of this study is to understand the extent to which helmets in use in Kenya comply with the current helmet standard. The large number of helmets claiming certification and the subsequent testing shows a widespread lack of compliance.

Helmets in use also show high levels of degradation and low levels of understanding on the importance of the components that determine real protection, particularly the visor and the retention system.

Traceability gaps are also substantial, with a large share of helmets lacking identifiable logos, which not only fails to meet the requirements of KS 77:2012, but also weakens verification and the ability to enforce, and creates space for the supply of non-compliant and counterfeit products. By combining rider reported indicators with specialist photographic coding, this study moves from perception to evidence of the characteristics and quality of the helmets that are used every day by motorcycle taxi riders in Kenya.

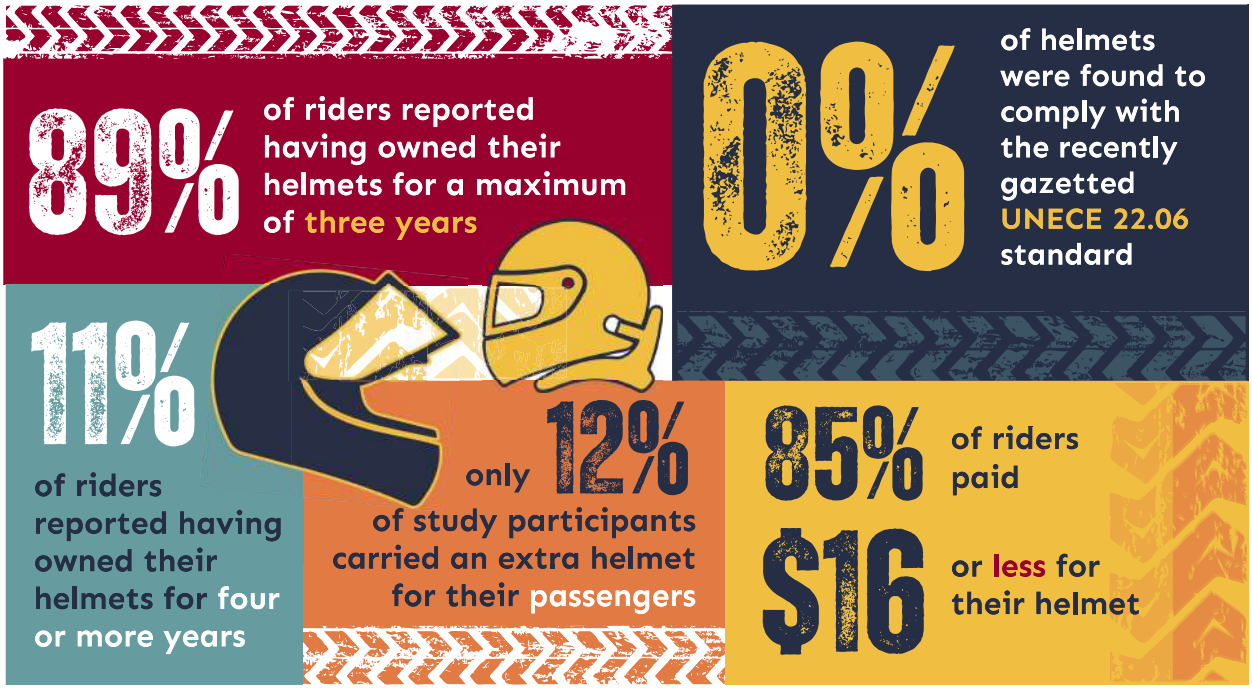
The data presented illustrates the need for improved awareness of certification for the end user, better helmet inspections on the part of KEBS, more rigorous surveillance of imported helmets, and the need for a testing lab to confirm certification.

In addition, this study shows that many of the helmets that riders consider to be serviceable are likely unsafe in practice, often due to missing components and compromised retention systems that riders have normalised as everyday wear.

The policy implication is clear: improving helmet safety requires an approach that integrates affordability, verification of certification claims, and enforceable safety thresholds that focus on helmet integrity and correct retention use.

If Kenya transitions to a stricter standard without managing supply, traceability, and cost barriers, the likely outcome is not better protection but greater non-compliance and an increase in the proliferation of non-compliant helmets on the Kenyan market.

The argument for urgent action is clear. Reducing deaths on Kenya's roads is essential to protecting livelihoods, strengthening families, and reducing the economic burden caused by preventable motorcycle crashes.



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