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Deliverable D5.1

Current procedures and methodologies of national road safety work concerning road users in selected African countries

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Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

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Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table of content

1	Introduction	1
1.1	Background	1
1.2	Aim.....	2
2	Method	3
3	Results and discussion.....	6
4	Conclusion.....	21
5	References	22

1 Introduction

The primary aim of AfroSafe is to make a significant progress in promotion of the Safe System *modus operandi* within the road safety work context in African countries. This is reached by exposing the local practitioners and decision makers to the state-of-the-art knowledge and practices within road safety management based on Safe System principles, focusing on safe vehicles, safe infrastructure, safe road users and post-crash responses. The long-term goal is a system free from death and serious injury. The fundamental principles of Safe System are universal, yet there are many ways to implement them. To combat the argument ‘this works in Europe, but Africa is different’, AfroSAFE will work on translating the tools and practices adopted in Europe to the African context. as well as supporting them by sharing necessary knowledge, tools and methods for road safety improvement—adjusted to the African conditions and in tight cooperation with the local actors.

While project activities cover all aspects of road safety in Africa, two areas get particular attention and are emphasised in all work packages:

1. **Vulnerable road users.** VRUs are the largest but most underprivileged road user group in Africa, disproportionally impacted by traffic accidents. Creating safe environments for VRUs has a direct positive impact on several of the Sustainable Development Goals, such as related to health and well-being (Nr.3), gender equality (Nr.5), sustainable and liveable cities (Nr.11) and climate action (Nr.13).
2. **Local expertise building.** To achieve Safe Systems in Africa, it is necessary to reach a critical mass of both road safety professionals and road users with the right knowledge and attitudes. It is a long-term process, and the local educators play the key role in it. The project thus adopts a ‘train-the-trainer’ approach, creating the initial momentum and concentration of local expertise that will continue to spread after the project end.

1.1 Background

According to WHO estimates, 1.35 million deaths occur in traffic each year (WHO, 2018). The low- and middle-income countries are the main location of traffic safety problems globally, standing for 93% of traffic fatalities (Academic Expert Group, 2020). Traffic fatality rate (per population) in Africa is the worst among all world regions and is 3 times as much as in Europe (4 times in comparison to EU-countries). There has been a constant growth in African traffic fatalities and the number is expected to increase by another 68% over the next decade if nothing is done. Such prognoses may look pessimistic, but ‘resistance is NOT futile’. The experience of many countries shows that the trend can be broken, and positive dynamics achieved within a relatively short time if road safety gets proper attention and is treated in a systematic way. The expertise and experiences of the countries that are best performers in road safety are highly relevant for African countries. Despite the cultural differences, the risk factors, countermeasures and, most importantly, the principles for organising and prioritising road safety work (Safe System approach) are quite universal and work everywhere. This knowledge is readily available; however it is crucial to achieve a critical mass of local experts and professionals who could utilise it in an efficient way, adjust it to the African context and make sure that Safe System thinking reaches all levels of road safety work and involved stakeholders.

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Road users and road safety culture

Road safety culture (RSC) is defined as shared values and attitudes signifying what is important with respect to road user behaviour (e.g., safety, mobility, respect, politeness). RSC consists of shared norms prescribing certain road safety behaviours, shared patterns of behaviour, and shared expectations regarding the behaviours of others (Nævestad & Bjørnskau, 2012). Thus, the road safety culture encompasses what is normal and expected concerning all aspects of road user behaviour, such as speeding, overtaking, drinking and driving, crossing behaviour, use of seat belts, helmets, etc. Given the encompassing character of the safety culture concept, it is paramount to address safety culture when approaching for huge improvements in road safety and implementing Safe System thinking. Numerous studies also indicate a close relationship between countries' road safety records and their RSC, which directly influence road safety behaviours and consequently accident involvement (e.g., Torfs et al., 2021).

1.2 Aim

In this deliverable the focus is on safe road users. It presents a review of the current national road safety procedures, methodologies and various strategies which affect the safety of road users in the participating countries in Africa (Ghana, Tanzania and Zambia).

2 Method

A literature review was conducted with the aim to examine current national road safety documents. Table 1 presents the official documents which were reviewed in each country, which form the basis of the results from this study. In addition to this each partner with expertise in the field of road safety made comments about the implementation of the various policies and in some cases how the compliancy looks like. In addition to these comments from partners are also supported by information from other experts (anonymized) and published articles.

Table 1. Official documents reviewed in the study.

	Ghana	Tanzania	Zambia
Speeding	<p>The Ghana Highway Code, the Road Traffic Rules and Regulations (RTRR), 2012 (L.I 2180.)</p> <p>The National Road Safety Strategy, 165 (L.I 2180).</p>	<p>National Road Safety Policy 2009 Policy Direction 8.1(c).</p> <p>The Road Traffic Act, 1973.</p> <p>Section 51(1 and 2). The Road Traffic Act 2007 – Part V, (Section 32(1).</p> <p>The Highway Code, 2008.</p>	<p>The Road Traffic Act, 2002 (Act No. 11).</p> <p>The Road Traffic (Speed Limits) regulations, 2016.</p>
DIU	<p>The Road Traffic Act, 2004, act 683, section 5.</p>	<p>The Highway Code (2008)</p> <p>The Road Traffic Act, 1973, Section 44.</p>	
Seatbelts	<p>National seat belt law, regulation 119 (L.I 2180).</p>	<p>The Road Traffic Act (Amendment) Act, 2021, (Section 39(11)(a).</p> <p>National Road Safety Policy 2009, Policy Direction 5.3.3 (c).</p>	<p>The Road Traffic Act, 2002 (Act No. 11).</p> <p>The Road Traffic Act, 2016, (Seatbelt and Child Car Seat) regulations.</p>
Fatigue	<p>The National Road Safety Strategy, regulation 119 (L. I 2180).</p>	<p>The Highway Code (2008).</p> <p>The Road Traffic (Public Service Vehicles) Regulations, (section 5-8).</p>	
Passengers (children)	<p>The National Road Safety Strategy, regulation 119 (L. I 2180).</p>	<p>Road Traffic (Amendment) Act, 2021 39D, (section 3 and 6).</p>	<p>The Road Traffic Act, 2002, (Act No. 11).</p> <p>The Road Traffic, 2016, (Seatbelt and Child Car Seat) regulations.</p>

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 1. Official documents reviewed in the study, continued.

	Ghana	Tanzania	Zambia
Helmet use	The National Road Safety Strategy, regulation 84 (L. I 2180).	The Road Traffic (Amendment) Act, 2021 39D.-(5). The Highway Code, 2008.	The Road Traffic, Act, 2022 (Act No. 11).
Driver training	The National Road Safety Strategy, (L. I 2180).	The Road Traffic Act, 1973.	
VRU		National Road Safety Policy 2009, Policy Direction 5.2.2. Tanzania Road Traffic Act 1973. The Highway Code 2008. Roads Act 2007. National Transport Policy 2003.	The National Transport Policy, 2016.
Enforcement	The Road Traffic Act (Amended) (L.I 2180). Road Traffic Regulations, 2012 (L.I 2180).	The Road Traffic Act, 1973, section 40.	Road Traffic Laws, 2022, (Act No 11).
Insurance	The Third-Party Motor Insurance Act 1958 (section 3).		
Campaigns		National Road Safety Policy 2009, Policy direction 5.3.3 (c) The Road Traffic (Public Service Vehicles) Regulations 2.1 (g).	

3 Results and discussion

In this chapter policies regarding road safety are presented followed by comments regarding their implementation. In addition to this information about NGOs working within the field of road safety is also provided. The chapter will start with polices regarding speed limits, see Table 2.

Table 2 Policies regarding legal speed limits

Ghana	Tanzania	Zambia
<ul style="list-style-type: none"> • 30km/h (roads within a school, a playground or health facility, a church, mosque, market or shopping centre procession or where human activity is dominant), • 50km/h (roads or a section of roads situated within an urban area), • 80km/h (roads or section of roads other than a motorway, outside an urban or built areas). • 100km/h on a motorway. <p>For Truck Drivers: 75km/h for a loaded truck 80km/h for an unloaded truck.</p>	<ul style="list-style-type: none"> • 50km/h for all vehicles in built-up areas (even if there is no traffic sign), • 80km/h for heavy goods vehicles (>3500kgs gross vehicle weight) and public service vehicles (buses, coaches, but not taxis) outside built-up areas, • 100km/h maximum speed for cars and other light vehicles outside built-up area. <p>Vehicles with a permissible weight of more than 3500-kilogram shall not exceed 80 kilometres per hour.</p> <p>The speed limits should be in line with scientific assessment of the road.</p> <p>Drivers are required to have control of their vehicles at all circumstances when driving by ensuring that they adjust their speed in such a way that that driver of a vehicle can stop the vehicle within his range of forward vision and short of any foreseeable obstruction.</p>	<ul style="list-style-type: none"> • 40km/h for all vehicles in built-up areas (even if there is no traffic sign), • 60km/h built up areas outside a local authority road, • 100km/h maximum speed any other areas. <p>For public service goods vehicles and heavy vehicles or trailers: maximum speed limit 80 km/h.</p>

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Despite the fact that all countries have stipulated different regulations for speed drivers still speed above the posted speed limits and this applies to all the countries. In Tanzania this is especially prevalent outside built-up areas. In a previous study, from Ghana over 95% of the motorists exceeded the posted speed limit of 50 km/h. The average speed of vehicles was 87 km/h (Damsere-Derry et al., 2007). The same study found that drivers of private cars were more likely to speed than others, followed by large buses. In Zambia efforts have been made by the government and organizations to promote adherence through education, awareness campaigns, and law enforcement. The presence of speed cameras and increased police patrols can act as deterrents. In Table 3 policies regarding driving under the influence of alcohol (DIU) are presented together with policies about police enforcement and sanctions.

Table 3 Policies regarding driving under the influence of alcohol.

Ghana	Tanzania	Zambia
<p>The BAC limit is less than 0.08g/dl for all drivers, including novice drivers.</p> <p><i>Enforcement:</i></p> <p>The police undertake random breath testing while carrying out enforcement of RTRR. Sometimes, it is conducted in the case of a fatal crash when the driver is suspected of having engaged in drunk driving.</p>	<p>The BAC limit is less than 0.08g/dl. Drivers of buses, daladalas (i.e. minibuses) and goods vehicles providing transport services, <u>must not</u> drink any alcohol before driving.</p> <p><i>Enforcement:</i></p> <p>A police officer may require any person driving or attempting to drive or in charge of a motor vehicle on a road or other public place to accompany him to a police station or to a medical practitioner for alcohol testing if the police officer has reasonable cause. If convicted driving under the influence of alcohol & drugs above the prescribed limit, will be liable to a fine of not less than Tanzania shillings fifteen thousand but not exceeding Tanzania shillings fifty thousand or imprisonment for a term of two years not exceeding five years.</p>	<p>The BAC limit is less than 0.08g/dl for all drivers.</p> <p><i>Enforcement</i></p> <p>Fines or imprisonment for a period of not more than six months for second or subsequent convictions.</p>

In all the countries the BAC limit is 0.08g/dl although in Tanzania drivers of commercial vehicles must not drink at all. This can be compared with the majority of European countries which have a drink drive limit of 0.05g/dl.

In Ghana driving under the influence is predominant among private vehicle drivers. DUI is also common in rural areas (Damsere-Derry, Palk, & King, 2017; 2018). Most cases of DIU, regardless of country, is during weekends when social events, including funerals, weddings, football games etc are predominant. According to the results from a special traffic law enforcements operation in Zambia during the 2020 festive season over 150 drivers were

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

tested with three times above the permissible level (Road Transport & Safety Agency, 2020a). Table 4 presents what kind of policies exist with regard to seat belt usage.

Table 4 Policies regarding seat belt usage of drivers and passengers

Ghana	Tanzania	Zambia
<p>Seat belt usage applies to a vehicle's front and rear seat occupants, including the driver.</p> <p><i>Enforcement</i></p> <p>Fines. The MTTD randomly checks driver seatbelt use in accordance with Section 119 of the Road Traffic Regulations of 2012 (L.I. 2180).</p> <p>A driver who contravenes the regulations commits an offence and faces a fine of 10 to 50 penalty units (GHS 120 to GHS 600) and/or prison terms up to three months.</p>	<p>Applies to any driver and passenger sitting in the front seat in a motor vehicle.</p> <p><i>Enforcement</i></p> <p>Fines for not wearing seat belt for a driver and a front passenger are Tanzania shillings thirty thousand or imprisonment for a term of six months or both prison and fine. The law is silent for not wearing seat belt for a rear passenger.</p>	<p>Applies to a vehicle's front and rear seat occupants, including the driver.</p> <p><i>Enforcement</i></p> <p>Fines. A person who contravenes these Regulations commits an offence and is liable, upon conviction, to a fine not exceeding three months, or to both.</p>

In Ghana and Zambia both drivers and passengers shall wear a seat belt and this also applies to passengers in the back seat. In Tanzania the rule is only for passengers in the front seat. Results from observations show that the seatbelt-wearing rate is higher for the front occupants in Ghana than for the rear seat occupants. Private vehicle occupants have a higher seat belt-wearing rate than commercial vehicle occupants. In Tanzania the rate of seat belt usage in the country varies depending on the type of vehicle. The majority of front occupants in the private vehicles and taxi wear seatbelts, but there is a low rate of seatbelt usage among commercial vehicle occupants. The police frequently conduct checks to ensure seatbelts compliance, but it is not common for rear passengers to wear seatbelts. Figures from Zambia shows that about half of the drivers comply with the rule (49%) whereas it is lower for passengers in the front seat (37%) (Road Transport & Safety Agency, 2020b). The lowest rate of compliance is for passengers in the back seat (7%). Women are more likely to use the seat belt (71%) than men (46%). There is also a difference between drivers of commercial vehicles and drivers of private vehicles (37% and 53% respectively). In addition to this the rate of compliance varies across the country. Lusaka city has the highest driver seatbelt adherence rates (59%) followed by Livingstone (57%) and Ndola (47%). Choma town recorded the lowest adherence rates (30%). When it comes to seat belt usage for children some more specific policies exists, see Table 5.

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 5 Policies regarding seat belt usage of children

Ghana	Tanzania	Zambia
<p>Children below 5 years are prohibited to be seated in the front seat unless a restraining or safety device is provided for the child. Above 5 years, the child must be in a seat belt if seated in front.</p> <p><i>Enforcement</i></p> <p>Offending drivers/parents are cautioned.</p>	<p>A person shall not carry a child in a private motor vehicle unless that child is properly restrained in an appropriate child restraint that conforms to the prescribed national safety standards, best suited to his/her height and weight.</p> <p>A child under five years of age shall not be seated in the front seat of a motor vehicle whether accompanied by any person or alone.</p> <p><i>Enforcement</i></p> <p>Offending drivers/parents are cautioned.</p>	<p>A person carrying a child (three years or below) in a motor vehicle shall ensure that the child is strapped securely on a child car seat while travelling in the motor vehicle.</p> <p>A child should not be seated in the front seat. The child must be strapped securely in a child car seat while travelling in the motor vehicle.</p> <p><i>Enforcement</i></p> <p>Fined.</p>

All the countries have rules for how and where children shall be seated and that they shall be restrained by a safety advice. In both Ghana and Tanzania this applies to a child below the age of five and in Zambia below the age of three. In Tanzania the rule also specify that the seat need to comply to national safety standards. If a driver or parent do not comply with this, then they will be cautioned. However, according to experts the law is not strictly enforced in any of the countries. This might be one of the explanations for the results from a study from Zambia which showed that the percentage of drivers who comply with this rule is rather low. Out of out of 463 vehicles which were observed, only 28 vehicles (6%) had children who were using child restraint systems (Road Transport & Safety Agency, 2020b).

The rate of compliance is also low in Ghana and a study conducted in Accra showed that factors which explained this also included; vehicle condition, child location in the vehicle and the presence of other occupants aside from the driver and child, as influencing driver use of child safety restraints (Sam, 2015).

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 6 Policies regarding vulnerable road users

Ghana	Tanzania	Zambia
The National Transport Policy, National Road Safety Strategy and Ghana Highway Code contain measures to protect vulnerable road users. Examples of these measures include providing lanes, foot-bridges, walkways, and sensitisation on their use etc.	The road authorities shall design, construct and maintain their roads to provide for all road users, minimize conflicts and crashes and shall ensure that the design and construction of all road facilities take into account the needs of the vulnerable and physically disadvantaged in an appropriate manner. They shall give highest priority to actions aiming at reducing excess and inappropriate speed problems and reducing the risk for vulnerable road users.	The National Transport Policy, states broadly that government would support the development of VRU. The policy briefly mentions the current lack of facilities for VRU under the short section “Rural Non-motorised and Intermediate Transport.” No annual targets or estimated costs for constructing walkways and cycle tracks.

According to the policies measures should be implemented to protect vulnerable road users. However, very little has been done to implement these measures. For instance, according to experts, pedestrian infrastructures are mostly missing in Ghana; the few available are also taken over by street hawkers and parked vehicles obstructing pedestrians’ use. The same can also be said about Zambia since the road legislation and policies do not adequately address non-motorised transport. Table 7 presents available policies regarding the interaction between vulnerable road users and motorists.

Table 7 Policies regarding Interaction between VRU and motorists

Ghana	Tanzania	Zambia
The design and construction of roads should segregate VRU from motorised transport.	When approaching a pedestrian crossing marked with white stripes (a “zebra crossing”) the motorist MUST stop if anyone is on the crossing or about to cross. The driver MUST NOT overtake any vehicle that has stopped to give way to pedestrians, and they MUST NOT park their vehicle on a pedestrian crossing - or within 5 metres of one. When overtaking the motorist should provide enough space for motorcyclists and cyclists.	Drivers should give due regard to other road users.

The policies clearly show, at least in Ghana, that the VRU and motorists should be separated. In Tanzania drivers should also stop for a pedestrian if they are crossing at a zebra crossing. However, as mentioned under Table 6 infrastructures are not always in places. For instance, road designs in Ghana combines all road users without enough segregation of VRU from the motorised transport users. Infrastructure for VRUs is available but limited to

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

selected roads and is inadequate. Mention can be made of the Northern Regional capital, Tamale, where cyclist and pedestrian walkways have been provided in the road network in the capital and on major roads. However, these lanes are obstructed by hawkers, parked vehicles, and other road users. Another policy from Tanzania which clearly states that drivers shall stop for pedestrians at a zebra crossing. This very rarely happens. Instead, it is the pedestrian who almost invariably give way to motor vehicles rather than the other way around. Policies regarding fatigue and driving is presented in Table 8.

Table 8 Policies regarding fatigue

Ghana	Tanzania	Zambia
<p>A person, or an owner of a motor vehicle, shall not drive or cause or permit another person to drive a commercial vehicle for a continuous period exceeding four hours; or for a period amounting in the aggregate to more than eight hours in a period of twenty-four hours or five hundred kilometres whichever comes first.</p> <p>After a continuous period exceeding four hours a driver of a commercial vehicle should have a rest of 30 minutes, or 8 hours of rest after more than eight hours driving in a period of twenty-four hours or five hundred kilometres, whichever comes first.</p> <p>The rules are monitored and enforced through the logbooks.</p>	<p>The Highway Code (2008) provides a number of recommendations including taking a 30-minute break after every 3 hours driving. It also enough supply of fresh air into their vehicle. If feeling tired find a safe place to stop and rest. Drinking two cups of coffee is also recommended.</p> <p>Public transport vehicles (inter-regional transport) are prohibited to travel between 22:00 hours local time and 05:00 hours local time.</p>	<p>The highway code recommends drivers to plan their journey to take sufficient breaks. A minimum break of at least 15 minutes after every two hours of driving is recommended. If you feel at all sleepy, stop in a safe place.</p> <p>Public transport vehicles are prohibited to travel at night.</p>

In Ghana and Tanzania, the policies are very specific and clearly show that breaking the rules is a violation. However, in Zambia the rule is less strict since it is only recommended. Regardless of this, commercial drivers in the different countries do not always comply with the rules. Motor insurance is compulsory in the different countries, see Table 9.

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 9 Policies regarding motor insurance

Ghana	Tanzania	Zambia
<p>A motor Third Party Insurance is compulsory covering liabilities arising from a motor and resulting in injuries, death, and third-party property damage.</p> <p>It is also compulsory to insure a motor vehicle.</p> <p><i>Enforcement</i></p> <p>Driving without insurance is an offence, and offenders are prosecuted at the law court.</p>	<p>All vehicles on the road should be insured.</p> <p><i>Enforcement</i></p> <p>Driving without insurance is an offence.</p>	<p>A motor third party liability insurance is a mandatory requirement for all motor vehicles.</p> <p><i>Enforcement</i></p> <p>Driving without insurance is an offence.</p>

The policies regarding motor insurance clearly state that vehicles should be insured and if they do not comply, then this is regarded as an offence.

Table 10 Policies regarding the usage of helmets for motorcyclists and passengers

Ghana	Tanzania	Zambia
<p>Both riders and pillion riders should wear a helmet. The laws also state that the helmet should be fastened properly with the chin strap under the chin.</p>	<p>Riders should wear a helmet. The laws also state that the helmet should be fastened properly in conformity with the prescribed national safety standards. The same does not apply to pillion riders.</p>	<p>Both riders and pillion riders should wear a helmet which is designed for use on the motorcycle.</p> <p>It is the rider who is responsible to ensure that children below the age of ten to wear a helmet.</p>

The policies state that both riders and pillion riders should wear a helmet. In Ghana and Tanzania, it also states that it shall be properly fastened. In Zambia the design of the helmet is also included in the policy. Riders in Zambia is also responsible for the children below the age of ten. According to some observations helmet-wearing tend to be good, at least for the riders in Ghana and Zambia. The same cannot be said about Tanzania. At least not according to a survey conducted by an NGO in Tanzania (Amend). The results showed that out of 100 motorcyclists 73 have never wore helmet and that all 100 motorcyclists stated that their passengers never wore helmets. In a similar survey passengers stated that they never wore helmets or only wore helmets when drivers offered them one¹. There are also some policies regarding protective clothing, and in Ghana this applies to both riders and the pillion riders.

¹ <http://demo8.egonet.go.tz/latra/uploads/documents/sw-1652535139-ROAD%20SAFETY-FinalReport%20-%20COWI.pdf>.

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

The policy in Tanzania regarding children is that they should not be carried unless on a proper seat is securely fixed to the motorcycle. Motorcycle taxis is sometimes used in the different countries and Table 11 presents policies related to this.

Table 11 Policies regarding motorcycle taxis

Ghana	Tanzania	Zambia
<p>Road Traffic Rules and Regulations in Ghana prohibits using motorcycle or tricycle for commercial passenger purposes (i.e., motorcycle taxis). It can be used for courier services but not for carrying a fare-paying passenger.</p>	<p>Tanzania has specific regulations in place for motorcycle taxis, commonly known as boda-bodas. These regulations include licensing and registration requirements, passenger safety measures, fare regulation, and compliance with traffic laws. Boda-boda riders must adhere to these regulations to operate legally and safely.</p>	<p>In Zambia, the regulation of motorcycle taxis is primarily the responsibility of the Road Transport and Safety Agency (RTSA).</p> <p>The RTSA has introduced a number of regulations for motorcycle taxi operators which shall make it a viable and sustainable mode of transport. The regulations include:</p> <p>Registration: All motorcycle taxis must be registered with the RTSA, and operators must be licensed.</p> <p>Training and testing: Riders must pass a training and testing program.</p> <p>Equipment: Motorcycle taxis must be equipped with functional brakes, mirrors, and lights, and riders and passengers must wear helmets.</p> <p>Insurance: Operators must have third-party insurance.</p> <p><i>Enforcement</i></p> <p>The RTSA enforce these regulations and conduct random inspection.</p>

In all the countries motorcycle are used to transport passengers, as a form om public transport. However, in Ghana it is not allowed to carry passengers who pay for the trip. In Tanzania and Zambia, it is allowed although they also have to comply with a number of regulations. Some of the reasons for using motorcycle taxis is that they can use short-cuts and avoid heavy traffic but also travel in areas where there is no public transport (Alimo, et. al., 2022). Even if this is not allowed in Ghana studies have found that it exists, especially in Accra, as a form of informal public transportation (Bofah, Monkah, & Larley, 2022). According to the same study riders of motorcycle taxis frequently, speed and disregard traffic regulations. Polices regarding driver training for novice and professional drivers are presented in Table 12 and 13.

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 12 Policies regarding driver training (novice drivers)

Ghana	Tanzania	Zambia
<p>The curriculum for novice drivers is approved by the licensing authority (Driver and Vehicle Licensing Authority- DVLA) and is used across the country.</p> <p><i>Driver training mandatory elements:</i></p> <ul style="list-style-type: none"> • 18 years and above, • Medically fit, • A Learner License, valid for 3 months issued by DVLA. <p><i>Driving tests:</i> Theoretical Computerised-Based Test, Practical In-Traffic test.</p> <p>After successfully passing both tests a temporal license for 3 months will be issued. After 3 months, a permanent license is issued if there are no reasons to withdraw it.</p>	<p>The traffic police division create and regulate the curriculum for novice drivers.</p> <p><i>Driver training mandatory elements:</i></p> <ul style="list-style-type: none"> • 18 years and above, • A learner/provisional driving licence, • Medically fit. <p><i>Driving tests:</i> Theoretical written test, Practical In-Traffic test.</p>	<p><i>Driver training mandatory elements:</i></p> <ul style="list-style-type: none"> • 18 years and above, • A learner/provisional driving licence, • Medically fit. <p>The novice driver can practice with a supervisor who is in possession of a valid license. A “L” plates must be displayed on such a motor vehicle.</p> <p><i>Driving tests:</i> Theoretical written test, Practical In-Traffic test.</p>

The mandatory elements are identical in the different countries. One source from Ghana points out that corruption is undermining the (novice) driver training and certification. Some drivers have acquired valid driving licenses without going through the formal laid down procedures¹. It is also concluded that drivers training and testing are not up to par with best practice standards² which according to other sources apply to all the countries.

¹ <https://www.theghanareport.com/dvla-interdicts-4-employees-implicated-in-corruption-expose/>

² <http://demo8.egonet.go.tz/latra/uploads/documents/sw-1652535139-ROAD%20SAFETY-FinalReport%20-%20COWI.pdf>

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 13 Policies regarding driver training (professional drivers)

Ghana	Tanzania	Zambia
<p>There is a curriculum for the training of professional drivers. Currently, Transaid, UK and the DVLA are drafting a new training curriculum for professional truck drivers.</p> <p><i>Professional training mandatory elements:</i></p> <p>Acquired a minimum/basic license category(ies),</p> <p>In some cases, a proficiency Test.</p> <p><i>Driving tests:</i></p> <ul style="list-style-type: none"> • Participate in t a workshop organised by the Licensing Authority, • Undergo a mandatory refresher course once a year, • Licences are renewable every 2 years and replaced after 6 years. 	<p>The National Institute of Transport (NIT) drafts the curriculum for professional drivers. The curriculum is mostly guided by the Highway Code and other laws in relation to road safety and transportation.</p> <p><i>Professional training mandatory elements:</i></p> <ul style="list-style-type: none"> • Be at least 18 years old, • The applicant must have certificate of competence from the Transport Regulatory Authority, • Have a thorough understanding of road signs, traffic rules and regulations, • Training in defensive driving techniques, • Fatigue management, • Traffic violation consequences, • Passenger safety, • Vehicle handling and maintenance. <p><i>Driving tests:</i></p> <ul style="list-style-type: none"> • Theoretical test, • Practical In-Traffic test. <p>Upon successful completion of the test a “Professional Competence Certificate for Public Service Vehicle Drivers” will be awarded to the driver.</p>	<p>There is a curriculum for the training of professional drivers.</p> <p><i>Professional training mandatory elements:</i></p> <p>A valid driver's license.</p> <p>The type of license required may vary depending on the type of vehicle they will be driving. For example, if they plan to drive a passenger vehicle, they will need a Class B license, while a heavy goods vehicle may require a Class C license.</p> <p>Be at least 21 years old.</p> <p>Medical certificate attesting to fitness to drive.</p> <p><i>Driving tests:</i></p> <p>Licences are renewable every 5 years.</p>

The policies are fairly similar across countries although they have to be slightly older in Zambia than in Tanzania. In Ghana the licence has to be renewed every 2 years whereas in Zambia it is every 5 years.

Table 14 Policies regarding police enforcement

Ghana	Tanzania	Zambia
<p><i>Practices in general:</i> The Motor Traffic and Transport Department (MTTD) of the Ghana Police Service is responsible for enforcing road traffic rules and regulations. The MTTD also undertake education of road users.</p> <p><i>Types of sanctions</i> Prosecution at the motor court. Fines inclusive of spot fines.</p> <p><i>Equipment used:</i></p> <ul style="list-style-type: none"> • Laser, • Speed guns, • Speed cameras, • Breathalysers, • Alcometres, etc. <p><i>Distribution of enforcement over the road network</i> Not evenly distributed and mostly concentrated on major highways, crash-prone routes, and urban areas. The police enforce seatbelt-wearing, especially on highways, trunk roads, urban roads, etc.</p> <p><i>Staff and their training</i> The MTTD officers undergo rigorous training in enforcing traffic rules and regulations before they are posted to duty stations. They are equipped to conduct accident/crash investigations for prosecution and otherwise.</p>	<p><i>Practices in general:</i></p> <ul style="list-style-type: none"> • Enforce Laws of the country (Policy Direction 8.2), • Collects and compile Road Traffic Accident (RTA) Data, • Conduct annual vehicle inspection. <p>Most Traffic police officers regulate and control traffic. They also conduct vehicle and licence inspections.</p> <p><i>Types of sanctions</i></p> <ul style="list-style-type: none"> • Warnings, • Fines, • Imprisonment (depending on the type of violation). <p><i>Equipment used:</i></p> <ul style="list-style-type: none"> • Speed laser camera, • Breathalyser, • Smartphone (to check for previous fines and insurance), etc. <p><i>Distribution of enforcement over the road network</i> Concentrate mainly on the main road and the road with a lot of traffic.</p> <p><i>Staff and their training</i> There is a proficiency course offered by Tanzania Police School in Moshi region including Traffic enforcement.</p>	<p><i>Practices in general:</i></p> <ul style="list-style-type: none"> • Prevent or minimize road traffic accidents on highways, • Ensure that Passenger Service Vehicle drivers abide by the regulations, • Educate motorists and other members of public on the highway, • Warn and charge erring motorists violating the Road Traffic Act, • Set up speed traps and charge motorists exceeding speed limits on the highways. <p><i>Types of sanctions</i></p> <ul style="list-style-type: none"> • Fines, • Perpetual offenders are taken to subordinate courts. <p><i>Equipment used:</i></p> <ul style="list-style-type: none"> • Barricades, • Beacons, • Speed camera, • Breathalyser. <p><i>Distribution of enforcement over the road network</i> The Traffic police work in partnership with the Road Transport & Safety Agency to conduct enforcement across the country. They station their vehicles along specific corridors with high incidents of traffic violations.</p>

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

<p><i>Linkage to campaigns/other safety work</i> The Police (MTTD) undertake campaigns on speeding, drunk driving, helmet-wearing, etc. Their campaigns are mainly targeted at particular road user.</p> <p>Sometimes civil society groups carry out campaigns with the police in combination with enforcement.</p>	<p><i>Linkage to campaigns/other safety work</i> Every year, the National Road Safety Council, in collaboration with various organizations, organizes a road safety week to promote road safety and raise understanding of road users about specific risks, how they occur and how to deal with them. The traffic police play a vital role in this initiative by actively participating and enforcing road safety measures as well as checking the safety of vehicles (road worthiness) for use in accordance with articles 81, 83 and 39(1) of the Tanzania Road Safety Act.</p>	<p><i>Staff and their training</i> Traffic inspectors train for 6 months.</p>
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The police have the authority to ensure that road user comply with the rules and the use of equipment are fairly conventional. However, reports suggest that the police are under equipped and underfunded making them less effective. In most countries they are also responsible for education of road users and carry out campaigns, either on their own or together with NGO. Despite this the public support for police enforcement is rather poor. Perhaps one important reason for the poor support is that the police are often accused of taking bribes while carrying out their duties on the road. Sometimes this would appear to be something drivers do without being prompted in order to avoid being fined. This in turn greatly undermine the effects of traffic policing and enforcement (Sam, 2022). As an example, the Zambia Police traffic section is ranked among the top with a higher likelihood of taking bribes at 40.7 percent (Anti-Corruption Commission and Transparency International Zambia, 2019).

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 15 Policies regarding campaigns

Ghana	Tanzania	Zambia
<p><i>Principles</i> The national road safety authority (NRSA) oversees activities on publicity and educational campaigns. Their work is carried out with key stakeholders such as the police, transport unions, Media, State Institutions, etc.</p> <p>The content is vetted before it is approved for publication or airing to conform to the laws.</p> <p><i>Practices</i> Focus on speeding, drink-driving, helmet, seatbelt wearing, and child safety, etc.</p>	<p><i>Principles</i> The Land Transport Regulatory Authority (LATRA) is in charge of enhancing the welfare of Tanzanian society through coordinating land transport safety activities this includes raising public knowledge, awareness and understanding of the regulated sector.</p> <p><i>Practices</i> The government via the National Road Safety Council conducts an Annual Road Safety Week aimed at raising awareness on road safety.</p>	<p><i>Principles</i> There is a strategy from the Government to aid in increasing public awareness. The primary aim is to bring about the desired change in road user behaviour for the purpose of making roads safer.</p> <p><i>Practices</i> Focus on speed, drink/drug driving and educating the general public about traffic rules.</p> <p>Incorporate road safety issues in formal education, extend education and awareness to parents, and support the implementation of Road Safety Education in all schools and communities.</p> <p>Empower contractors to work with local communities on road safety awareness; and Publicise road safety regulations to all road users in rural areas.</p> <p>The Police Traffic Officers educate school children on road safety awareness.</p> <p>The information is disseminating through presentations, talks, information kiosks and road shows.</p>

In Ghana the campaigns are mostly carried out prior to and during festive occasions (e.g., Easter, Christmas) and in election years. The rationale behind this is that these periods witness frequent crashes with severe outcomes. Information from Zambia would suggest that there are limited capacity and resources within RTSA to make a lasting impact on road user behaviour. When publicity campaigns are undertaken, they are not informed by accident data, and tend not to focus on high-risk areas and groups. Certainly, education and publicity could play a greater support role within other areas of RTSA as cross-cutting function. Further, there is little monitoring and evaluation of actual impact of education and publicity activities, and therefore no measure of outcomes. The lack of evaluations was also reported in Ghana. Education and publicity programmers need to be closely linked to enforcement. The quality of driver training appears to be far from adequate, judging by the failure rate and this may explain the high number of unlicensed drivers. The objective of these policy measures is to inculcate a culture of safer road user behaviour. Table 16 describes the NGOs working within the field of road safety but in this instance, we cannot refer to any policies.

Deliverable D5.1 Current procedures and methodologies of national road safety work concerning road users in selected African countries.

Table 16 Description of NGOs working within the field of road safety

Ghana	Tanzania	Zambia
<p>AMEND is a large non-governmental organisation that focuses on the safety of vulnerable road users in Ghana. Besides from offices in Ghana they also have offices in Mozambique and Tanzania.</p> <p><i>Activities</i></p> <ul style="list-style-type: none"> • They run road safety programmes in schools, • Motorcycle training, • Provide support to roads projects teams, to include pedestrian safety. <p><i>Skills</i></p> <ul style="list-style-type: none"> • Qualified engineers, • Programme Managers and Programme Officers, • Trained Road Safety Instructors. 	<p>There are about eight NGOs focusing on road safety and civil society. These include but not limited to AMED; Tanzania Road Association (TARA); Road Safety Ambassadors (RSA); Tanzania Road Safety Initiative (TARSI); Tanzania Women Lawyers Association (TAWLA); Helmet Vaccine Initiative Tanzania Foundation; Tanzania Relief Initiatives (TRI) and UWABA Cycling Community. Their focus is very broad.</p> <p><i>Activities</i></p> <ul style="list-style-type: none"> • They run road safety programmes in schools, • Liaise with the government, • Educate and provide information to the public, • Participate in campaigns for good and safe roads, • Engagement in rural road design and perform road safety design audits. <p><i>Skills</i></p> <ul style="list-style-type: none"> • Qualified engineers, • Programme Managers and Programme Officers, • Trained Road Safety Instructors, • Urban planners. 	<p>NGOs (for instance, Road Transport and Safety Agency, Zambia Road Safety Trust and Safe Steps Road Safety Zambia) work to influence policy and legislation at the local, national, and international level to improve road safety.</p> <p><i>Activities</i></p> <ul style="list-style-type: none"> • Educate the public and encourage safe behaviours among road users, • Encourage the public to speak out, • Provide training and technical assistance to organizations, governments and the public to help build their capacity to improve road safety, • Research and data analysis. <p><i>Skills</i></p> <ul style="list-style-type: none"> • Road Traffic Engineers

The information provided would suggest that a great deal of working aimed to reduce the number of road crashes are conducted by NGO. Some of them are highly skilled and have good contacts with Governments. For instance, in 2023 AMEND received a global award for their work on safe Schools from the President of Ghana¹.

¹ <https://www.fiafoundation.org/news/global-award-for-amend-and-fia-foundation-safe-schools-africa-programme-presented-by-ghana-president>.

4 Conclusion

The conclusion from the policies regarding road safety is that they are mostly in line with best practice. However, despite this, there is room for improvement. For instance, a further reduction of speed in urban areas which in Tanzania is 50 km/h to at least 40 km/h. Preferably the speed limits in areas with many vulnerable road users should be 30 km/h because the likelihood of surviving is much greater if the speed is 30 km/h. If a pedestrian is run over by a car driving 50 km/h the probability of dying is 85 percent whereas if the speed is 30 km/h it is 15 percent (DGT, 2021).

The permitted BAC limit is also rather high, 0.08g/dl. Even small amounts of alcohol impair driving and a study from 1985 showed that the driving performance was severely affected if the driver had a BAC of 0.08 g/dl (Moskowitz et al., 1985). The risk of a fatal crash doubles with each 0.02 increase of alcohol in the blood (see Heng, et al., 2006). When it comes to fatigue it is suggested that a supply of fresh air into the vehicle is enough, something which is not usually recommended since the effect tends to be short lived. The recommendations are instead to take a break of about 30 minutes (Philip et al., 2000).

The policies from the different countries regarding driver training showed that they used an approved curriculum. However, it was also concluded that driver training and testing could not be considered as best practice. It would appear that the problem is that the training focus is too much on something described as “lower-order skills”, i.e., how to handle the vehicle rather than “higher-order skills”. The latter means that risk-perception aspects and self-assessment is also included in the teaching curriculum. The notion of lower- and higher-order skills can be related to the Goals for Driver Education (GDE) framework (Hatakka et al., 1999). The framework emphasized that training needs to include much more than just teaching motor skills. This was also supported by Elvik et al. (2009) in a meta-analysis which concluded that too much focus on handling the vehicle (i.e., lower-order skills) can have a detrimental effect on road safety since it can lead to an overestimation of skills and greater risk-taking.

It could also be argued that it would be better to let the police carry out duties linked to policing and leave the work of training road users which include both education and campaigns to others. Thus far this is about the policies. When looking at how it is implemented in practice greater deviations were presented. Basically, in all the areas listed in this report there are problems with implementations. For vulnerable road users the infrastructure is not in place even if the policies suggest a range of measures. The enforcement carried out by the police leaves a great deal to be desired which in turn might explain why drivers do not comply with the rules. Another factor explaining the latter is the lack of a sound education.

The conclusion is therefore that some of the policies are based on state of the art although some of them would need to be updated. The biggest problem which also could be linked to road crashes is that very few of the policies are implemented, enforced and monitored.

5 References

- Alimo, P. A., Rahim, A. B. A., Larley-Young, G., Ehebrect, D., Wang, L., & Ma, W. (2022). Investigating the increasing demand and formal regulation of motorcycle taxis in Ghana. *Journal of Transport Geography*, *103*, 103398.
- Anti-Corruption Commission and Transparency International Zambia. (2019). *Zambia bribe payers index*.
- Bofah, N. A., Monkah, J. E., & Larley, J. (2022). Motorcycle Taxis Accident Patterns in Accra. *The International Journal of Engineering and Science*, *11*, 1-6.
- Damsere-Derry, J., Afukaar, F. K., Donkor, P., & Mock, C. (2007). Study of vehicle speeds on a major highway in Ghana: implications for monitoring and control. *Traffic Injury Prevention*, *8*, 142-146.
- Damsere-Derry, J., Palk, G., & King, M. (2017). Motorists' knowledge, attitudes, and practices toward alcohol-impaired driving/riding in Ghana. *Traffic Injury Prevention*, *18*, 28-34.
- Damsere-Derry, J., Palk, G., & King, M. (2018). Road safety implications of the blood alcohol concentrations among alcohol users exiting bars in northern Ghana. *Traffic Injury Prevention*, *19*, 799-805.
- Elvik, R., Vaa, T., Høy, A., & Sørensen, M. (2009). *The Handbook of Road Safety Measures: Second Edition*. Emerald Group Publishing.
- Gonzalo-Ordona, H., Arcea, M. R., Unamunzaga, A. L., Aponte, N., & Pérez-Acebob, H. (2021). Why is necessary to reduce the speed in urban areas to 30 Km/h? *Transportation Research Proceedings* *58*, 209–216.
- Hatakka, M., Keskinen, E., Gregersen, N. P., & Glad, A. (1999). Theories and aims of educational and training measures. In S. Siegrist (Ed.), *Driver training, testing and licensing – towards theory-based management of young drivers' injury risk in road traffic*. Results of EU-Project GADGET. Work Package 3. Bfu Report 40. Schweizerische Beratungsstelle fuer Unfallverhuetung. Berne.
- Heng, K., Hargarten, S., Layde, P., Craven, A., & ZHU, S. (2006). Moderate alcohol intake and motor vehicle crashes: the conflict between health advantage and at-risk use. *Alcohol and Alcoholism*, *41*, 451–454, <https://doi.org/10.1093/alcalc/agh258>.
- Nævestad, T.-O., T. Bjørnskaug (2012) 'How can the safety culture perspective be applied to road traffic? *Transport Reviews*, *32*, 139-154.
- Road Transport & Safety Agency (2020a). *Third quarter road traffic accident report, RTSA*.
- Road Transport & Safety Agency. (2020b). *Road transport and safety status report, RTSA*.
- Sam, E. F. (2015). Don't learn safety by accident: A survey of child safety restraint usage among drivers in Dansoman, Accra. *Journal of Transport & Health*, *2*, 160-165.
- Sam, E. F. (2022). How effective are police road presence and enforcement in a developing country context? *Humanities & Social Science Communications*, *9*, 1-11. <https://doi.org/10.1057/s41599-022-01071-1>.
- Torfs, K., Delannoy, Sh., Schinckus, L., Willocq, B., Van den Berghe, W., & Meesmann, U. (2021) *Road Safety culture in Africa. Results from the ESRA2 survey in 12 African countries*. (E-survey of road users' Attitudes). Brussels, Belgium: VIAS Institute. <https://www.ssatp.org/publication/road-safety-culture-africa-results-esra2-survey-12-african-countries>.