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HELMET WEARING AS A SAFETY TOOL: AN ANALYSIS OF THE LAW AND PRACTICE IN TANZANIA

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ABSTRACT

This paper critically assesses the existing legal and institutional framework on helmet wearing in Tanzania. It addresses two major issues (i) whether the existing legal and institutional framework governing road safety in Tanzania provides for adequate helmet wearing provisions? (ii) What should be done to ensure the effective implementation of helmet law provisions in Tanzania? The paper is partly based on a library survey of existing laws, policies, and literature on road safety, and observation from key informants in the enforcement agencies particularly the Tanzania Bureau of Standards and the Traffic Department of the Tanzania Police Force.

THE JUSTIFICATION FOR HELMET LAW

Helmet wearing is one of the safety mechanisms which protect road users from sustaining an injury. The helmet is a safety device that decreases the incidence of lethal and severity of non-lethal head injury in motorcycle crashes.ⁱ It is estimated that by 2020 about 110 million people will be saved by helmet-wearing in Low-Income Countries (LICs).ⁱⁱ Further, the estimated range of potentially avoided serious injuries by wearing helmets in Low-income countries are about 2.2 million by 2020.ⁱⁱⁱ While the estimated range of potential monetary benefits from lives saved by helmet wearing in the LICs will be 14 billion USD,^{iv} about 55 billion USD in the low-income countries will be saved if serious injuries and fatalities are avoided.^v

The National Highway Traffic Safety Administration (NHTSA)^{vi} report showed that the use of helmets saved the lives of 1,544 motorcycle riders in 2010 alone;^{vii} in 2013 an estimated 1630 lives were saved through the use of motorcycle helmets, while in 2015 use of motorcycle helmets saved an estimated 1772 lives. NHTSA observed that an additional 715 in 2013 fatalities and 740 fatalities in 2015 could have been saved if all motorcyclists had been wearing helmets.^{viii} This saved about 3 billion USD in economic costs and 19 billion USD in comprehensive costs. On average the use of helmets reduces the likelihood of death in a motor crash by 37%, while it reduces the risk of head injury by 69%.^{ix}

Tanzania has witnessed an increasing number of registered motorcycles in the year 2013 to 2016 from 46% to 54%, and the proportion of motorcycle crashes increased from 27% to 51%.^x Further, motorcycle crashes were the leading cause of fatalities (27.5%) and injuries (26.4%) compared to other modes of transportation.^{xi} This is associated with non-use of helmets, speeding, reckless driving during peak hours, violation of traffic laws, and so forth. The general effect of crashes in Tanzania is noticeable in the official government reports. For example, in the year 2013 number of crashes reported was 23,842 that led to 4,002 deaths. This represented an economic loss of Tshs. 2,400-2,500 billion (1.2-1.5 million USD) per year,^{xii} equal to the GDP of 3.4 %. While in the years 2014 and 2015, the GDP loss due to road crashes was 3.1% and 2.8% respectively.^{xiii}

On the other hand, the totals of 2,210,739 incidents were reported from January to December 2016 compared to 1,390,482 incidents that were reported in the same period of the year, 2015. Out of all traffic incidents reported in 2016, the number of major traffic crashes reported was 10,297 and the number of minor traffic incidents (notification) was 2,200,442 compared to 8,777 major incidents and 1,381,705 minor offences reported in a similar period in 2015.^{xiv} Moreover, in all these crashes a total of 3,381 persons died and 9,549 persons were injured in 2016 compared to 3,574 persons who died and 9,993 persons who were injured in the year 2015. The traffic crashes involving motorcyclists which were reported in 2016 was 2,653 compared with 2,749 incidents that were reported in the same period of the year 2015.^{xv}

The above statistical data sufficiently shows that crashes continue affecting road users, including drivers and passengers of a motorcycle. Although no record explains how helmet wearing has helped to reduce fatalities or serious head injuries in Tanzania, the global statistical information shows that wearing a helmet properly can result in the reduction of death by 40% whereas the risk of serious injury is reduced by 70%. Thus, Tanzania must adopt universal helmet law to ensure the protection of the right to life for the cyclists and the passengers in Tanzania.

Generally, a helmet protects road users particularly drivers and passengers in three different ways. First, it reduces the deceleration of the skull and hence regulates the brain movement.^{xvi} Secondly, it spreads the forces of the impact over a greater surface area so that they are not concentrated on particular areas of the skull. Thirdly, it prevents direct contact between the skull and the impacting object by acting as a mechanical barrier between the head and the object.^{xvii} However, the nature of protection depends on the style and design of a specific helmet. There are four most common types of helmets, namely: full-face helmets, open-face helmets, half head helmets, and helmets for tropical use. Consequently, depending on the style, the helmet is designed in a way to give effective protection to the outer and inner parts of the head, namely: cranium, cortex, cerebellum, spinal cord, brain stem, and basal ganglia.

ASSESSMENT OF THE LEGAL AND INSTITUTIONAL FRAMEWORK GOVERNING HELMET WEARING IN TANZANIA MAINLAND AND ZANZIBAR

It is important to note that road crashes affect people's right to life as enshrined under international instruments and the Constitution of the United Republic of Tanzania.^{xviii} One of the mechanisms for safeguarding the right to life is to ensure that roads are safe for all road users and that no fatalities happen as a result of a road crash. Generally, there are two legislations addressing road safety in Tanzania, namely: The Road Traffic Act (Tanzania Mainland) and the Road Transport Act 2003 (Zanzibar). Each of these legislations provides for helmet wearing for cyclists and passengers.

Section 39 (3) and (11) of the Road Traffic Act^{xix} provide that a driver of a two-wheeled or three-wheeled motor vehicle is obliged to wear a helmet when driving, except persons who have been exempted by the Minister. Thus, the requirement to wear a helmet is only imposed on the driver but not on passengers. However, this gap is partly addressed under the provision of the Transport Licensing Act^{xx} which provides for transport licensing issues including general prohibitions of road license holders. Though the Transport Licensing Act does not cover licensing of motorcycles and tricycles, specific rules are providing for helmet wearing by drivers of motorcycles used for carrying goods and passengers. Under regulation 4 of the Transport Licensing (Motor Cycles and Tricycles) Regulations, 2010, the operator of the motorcycle or tricycle for reward is required to apply for the road service license. Among the conditions for the road service license is that a driver and a passenger shall when be driving wear a crash helmet printed with an area identification mark.^{xxi}

The other condition to be observed by the driver of a motorcycle and tricycle is speed limits as prescribed by the road signs of which shall not exceed a speed of fifty kilometers per hour.^{xxii} Where the driver fails to comply with any of a road service license commits an offence and upon conviction, he will be liable to a fine of not less than fifty thousand shillings but not exceeding one hundred thousand shillings or to the imprisonment of not less than six months and not exceeding one year or to both fine and imprisonment.^{xxiii} Thus, the Road Traffic Act, 1973 and the Transport Licensing Act^{xxiv} provide for obligation of the drivers and passengers

on a motorcycle and tricycle to wear helmets. However, Road Traffic Act does not impose the same obligation to riders of bicycles and their passengers, a gap that needs to be cured. This is because the majority of the riders of bicycles do not wear helmets, although they are exposed to the same road risks.

On the other hand, the use of a helmet for the protection of human life in case of road crashes is enshrined in the National Road Safety Policy 2009 (to be referred to as NRSP). The NRSP provides that enforcement of traffic legislation should aim at controlling road user behavior by preventive, persuasive, and punitive methods to affect the safe and efficient movement of people and goods. The Policy, in particular, directs enforcement organs to increase the effectiveness of enforcement by focusing on the main road safety problems, namely, speed, use of seat belts, use of helmets, safety for vulnerable road users, and drunk driving, and ensure that enforcement is properly coordinated with awareness campaigns. Hence, the policy recognizes the use of helmets as the safety of every driver and passenger to wear helmets when riding motorcycles and tricycles. Moreover, none of the above two laws stipulate the nature of the helmet to be worn by drivers and passengers, and the manner of wearing.

Unlike Mainland, Zanzibar legislative framework contains a provision binding on both drivers and passengers to wear a helmet. Section 130(1) of the Road Transport Act 2003 states that ‘no person shall drive a motorcycle or be a passenger on a motorcycle unless he is wearing a protective helmet which fits him properly, and of which the chin strap is properly fastened under his chin, and that conforms to specified standard specifications.’ This provision is exhaustive as it sets an obligation to wear a helmet on every person using a motor vehicle. Secondly, it requires such a helmet to be fastened properly, and finally, such a helmet must meet the prescribed standards.

Apart from specific traffic legislations, there are other pieces of laws that provide for helmet related matters, especially the issue of the standard. Both under Mainland Tanzania and Zanzibar, there are institutions responsible for standard-setting and enforcement, namely TBS and ZBS respectively. The general control mechanism set in place cover product specifications and importation procedures. The first form of regulatory mechanism is set through *the Standards (Compulsory Batch Certification of Imports) Regulations, 2009*. Under these

regulations, no person is allowed to unload for the Tanzanian market any commodities or products not conforming to the requirements of the Tanzania Standards, or the commodity or product on which no batch certificate or CoC has been issued by the Bureau.^{xxv}

Thus, the above provision defines mandatory requirements for the helmet to be sold in the Tanzanian market two, namely: it must be of prescribed standards, and the importer must apply and obtain a batch certificate or certificate of compliance (for imported products). Where it is established that the helmet does not meet the above requirements, it may be re-exported to its country of origin or disposed of within the country.^{xxvi} As a matter of procedure, every person who wants to import products (helmet inclusive) must first, lodge an application for the batch certificate to TBS.^{xxvii} This is done through specific forms whereby one must declare the port of entry and attach other documents such as packing list, invoice, bill of lading/road consignment note or airway bill; or test certificate from the country of origin by the relevant standards authority.^{xxviii} The application for a batch certificate must be accompanied by payment of prescribed fees as per regulation 12.^{xxix}

Secondly, once the shipment arrives at the port then the authorized officer's procedure will take samples of given helmets for evaluation by testing and evaluation purposes to determine whether the product meets the required standards. Where it is established that the helmet meets specified standards, the Bureau issues a batch certificate to the importer or certificate of conformity on the shipment (CoC) for helmets tested by the foreign approved organs.^{xxx} It is important to note that where shipments have been certified abroad, random samples may be taken and retested by the Bureau. If it is found out that after retesting there are inconsistencies of the quality of actually imported helmets, then subsequent shipments will be subjected to individual shipment sampling and testing by the Bureau.^{xxxi}

Where the helmets meet prescribed specifications then a batch certificate signed by the Director-General or any officer appointed by the Director-General will be issued to the importer for clearing purposes.^{xxxii} Thirdly, the importer will then be required to submit to the Bureau the Bar Code details for all products detailed in the respective bill of lading, airway bill, or consignment note. This is for product identification during market surveillance. Then

the importer will be allowed to print stickers of Import Standardization Mark (ISM) for the quantities on the bill.

For enforcement of the import regulations, it is provided that any person who contravenes the regulations commits an offence. Upon conviction, such person will be liable to imprisonment for a term not less than 2 years or a fine not less than 50 million and not exceeding one hundred million shillings, or to both fine and imprisonment.^{xxxiii} Similarly, the Bureau is given the mandate to prescribe and enforce helmet quality standards. Ordinarily, each country has its standards on products. Historically, the first form of performance standards for the protective helmet was British Standard 1869:1952 (*Standards of crash helmets for racing motorcyclists*)^{xxxiv}, followed by British Standard 2001:1953 (Standards of Protective Helmets for Motor Cyclists) which were marked with the British Standards Institute (BSI) certification mark.^{xxxv} As for the United States, the government introduced a motorcycle helmet standard known as 'US Federal Motor Vehicle Safety Standard (FMVSS) No.218 in the year 1974.'^{xxxvi}

As discussed earlier, helmet standards in Mainland Tanzania are a mandate of Tanzania Standards Authority (TBS) which adopted helmet standards known as Tanzania Standard (Protective Helmets for motorcycle riders) Specification, TZS 1478:2013. According to these Standards, the protective helmet may be with or without a lower face cover and must be composed of the following: shell,^{xxxvii} protective padding,^{xxxviii} comfort padding,^{xxxix} retention system,^{xl} visor (eye-screen),^{xli} chin cup, and chin strap.^{xlii} Thus, the helmet which is acceptable for road safety purposes must be structured in a way that the above parts are fitted in the required materials. Furthermore, the helmet must be clearly and indelibly marked with the following information inside of the helmet: manufacturer's name or trademark; size, year of manufacture, and mass of the helmet to the nearest 20g. In addition to that, the helmet may be marked with the TBS standard mark of quality.

On part of Zanzibar, helmet standards are the mandate of the Zanzibar Bureau of Standards which regulates the manufacturing and importation of helmets in collaboration with the Tanzania Bureau of Standards (TBS). Generally, ZBS is a body corporate established under s.4 of the Zanzibar Standards Act 2011. Its functions include standard setting, examination, and testing of products and instruments, provide inspection and perform other functions as per

law.^{xliii} Like TBS, ZBS also controls issues of safety of helmets, vehicles, and motorcycles by prescribing and enforcing respective national standards and compulsory standards.^{xliv}

The provisions of the Motorcycle Regulations of 2005^{xlv} prescribe the requirement of an acceptable protective helmet in terms of its structure, retention system, and resistance to disease or skin irritation. Further, a helmet should not affect the wearer's audibility and it must have sufficient ventilation holes.^{xlvi} It is a condition that all motorcycle helmets and visors offered for sale in Zanzibar must have prescribed markings supported by a label with required information in English or its translation in Kiswahili.^{xlvii}

For enforcement purposes, any person who imports or sells helmets below specifications under regulation 3 commits an offence and upon conviction, one will be liable to a fine of not less than the equivalent of five hundred dollars in shillings.^{xlviii} Thus, the helmet which is acceptable for road safety purposes must be structured in a way that the above parts are fitted in the required materials.

BEST PRACTICE ON HELMET LAW IN SOME OTHER JURISDICTIONS

The relevance of helmet legislation that meets international standards is a concern for the international community. Several states have adopted comprehensive legislation that addresses all key issues including standard-setting and universal coverage. For example, the traffic law in Uganda makes it an offence for both a driver and a pillion rider failing to wear helmets of prescribed standards. Section 74 of the Road Traffic Act 2015 reads as:

- (1) A person shall at all times while driving or riding on a motorcycle or pedal cycle, wear a protective helmet in the prescribed manner, of the prescribed shape, quality, construction, or standard.
- (2) The driver of a motorcycle shall cause every person who is riding as pillion to wear a protective helmet in a prescribed manner at all times while riding on the motorcycle (*emphasis mine*)

The above provision obliges every person who is a driver or rider of a motorcycle to put on a helmet that meets defined specifications in terms of the manner of wearing it, its shape, quality, and standard. It should be noted that the law imposes an obligation on the driver of a motorcycle to ensure that a passenger puts on a helmet properly at all times during a ride. Similarly, the traffic law in Kenya^{xlix} contains more or less the same section, but with an addition of a driver or passenger to wear a jacket that has reflectors; an obligation on the driver not to carry more than one passenger at a time, and a requirement to insure a motorcycle. S.103B of the Traffic Act reads as hereunder:

- (1) A person, including a passenger, shall not ride on a motorcycle of any kind, class, or description without wearing a helmet and a jacket that has reflectors.
- (2) A person who rides a motorcycle shall provide a helmet and a jacket that has reflectors to be worn by the passenger, and shall carry only one passenger at a time.

Furthermore, s.60 of the Traffic Act of Kenya restricts pillion riding by making it unlawful for more than one person in addition to the driver to be carried on any two-wheeled motorcycle or to be so carried otherwise than sitting astride the motorcycle and on a proper seat securely fixed to the motorcycle behind the driver's seat. Thus, both ss.60 and 103B of the Traffic Act addresses specific situations prevailing in African countries whereby drivers of motorcycle would carry two or more persons for economic gains, hence endangering their safety. Helmet wearing and passengers' carrying on a motorcycle are an interrelated phenomenon in developing countries which have to be addressed.

Conversely, the Indian helmet law provides for a general obligation to wear protective headgear including helmets on both drivers and passengers of a motorcycle using a public road. Such protective gear must conform to Indian standards.¹ However, persons known as Sikhs who wear turban are exempted from wearing helmets during riding or driving a motorcycle. This is because wearing a turban (a special form of the crown) is a religious practice related to worship to God; it represents honor, self-respect, courage, spirituality, and piety. S.129 of Motor

Vehicle Act 1988 (as amended by the Motor Vehicles (Amendment) Act of 2001 reads as hereunder:

Every person driving or riding otherwise than in a sidecar, on a motorcycle of any class or description, shall, while in a public place, wear protective gear conforming to the standards of Bureau of Indian Standards; provided that the provision of this section shall not apply to a person who is a Sikh, if he is while driving or riding on the motorcycle in a public place, wearing a turban provided further that the state government, may, by such rules provide for such exceptions as it may think fit.

Similar exemptions to the Sikh have been extended by other countries, including Canada, United Kingdom, and the United States. However, this exemption has been challenged in court on the basis that it exposes people to serious risk in case of a road crash. The German court ruled against an accused person who challenged the helmet law on the ground of contravening with the constitutional right to freedom of religion. The Presiding Judge, Renate Philipp observed that ‘people wearing a turban on religious grounds are not for that reason alone exempt from the obligation to wear a helmet.’ The Leipzig court observed that ‘the claimant has to accept this restriction to his freedom of religion, as it serves to uphold the rights of others, too.’

It was further ruled that the ‘obligation to wear a helmet not only protects the driver but also keeps other drivers from being traumatized if they cause heavy injury to someone driving without a helmet.’^{li} A similar attempt to challenge exemption faced the Indian Supreme Court following a petition by a New Delhi cyclist known as Jagdeep Singh Puri who was prevented from participating in the competition for lack of a helmet. A bench of justices SA Bodbe and LN Rao determined that there was no link between a turban and Sikh religion, rather religion and covering the head. Thus, the court emphasized the need to wear helmets to protect cyclists from fatalities and head injuries.

On the other hand, South African helmet law^{lii} does extend to drivers and passengers of motorcycles, motor tricycle, motor quadricycle, and the sidecar attached to the motorcycle.

Both drivers and passengers must wear a protective helmet that is specifically designed for use in conjunction with a cycle type, and such helmet must fit him or her properly with a chin strap fastened under the chin.^{liii} Thus, a discussion in the above jurisdictions indicates that there is a need to take into account the local cultural, domestic, and traffic conditions in a state when enacting helmet law and helmet standards in any state. The bottom line should be to adequately protect users of all forms of motorcycles, be passengers or drivers. Moreover, for effective use of helmet law, high-quality helmets must be accessible and affordable to the users, supported by widespread education and comprehensive enforcement.

As discussed earlier, helmet law must be inclusive of all categories of people who use motorcycles or bicycles as a mode of transport, particularly children below 18 years. While the practice in developing states shows that children are carried on bicycles and motorcycles, the international minimum safety standards provide for the contrary. Generally, infants at birth to 2 years old are restricted to be carried on a motorcycle since they are regarded as ‘a head-neck-injury prone group.’ This is because infants have larger heads comprising 30% of body weight compared to the adolescent child whose head is 6% of body weight, and the brain is still developing rapidly.^{liv} Thus, riding on a motorcycle should be prohibited, unless done under emergency cases with parental care.^{lv} Neither Tanzania Mainland nor Zanzibar contains any provision about the protection of infants who otherwise are carried on motorcycles or bicycles.

On the other hand, toddlers and pre-schoolers between 2 to 5 years may be transported on bicycles and motorcycles, provided certain protective measures are set in place to accommodate their growth. Usually, toddlers have short legs and long trunk, with smaller heads in vertical height than adults.^{lvi} Naturally, this group is characterized by constant movement and curiosity about the environment; hence they are unable to concentrate and this leads to falling from the motorcycle.^{lvii} Thus, children of 2 to 5 years may be allowed to ride as a pillion passenger subject to the use of a mounted seat, approved crash helmets that fit their heads, and use of footwear (rubber or leather boots) to prevent foot injuries, including bicycle-spoke injuries.^{lviii} Furthermore, drivers of motorcycles carrying children must have passed an additional test related to carrying a child passenger.^{lix} Alternatively, transporting of children should be limited to only tricycles with a seat belt.

Similarly, children between 6 to 15 years may be allowed to be carried on a motorcycle provided the driver is authorized and children use all available protective gear, including approved crash helmets and footwear.^{lx} This is because such children have grown a sense of responsibility and they are rational beings since they can appreciate the risk of their choices. Generally, the Road Traffic Act 1973 and Road Transport Act 2003 do not have provisions addressing child helmets and conditions for transporting children on motorcycles. This gap needs to be addressed as soon as possible since motorcycles are much used to transport children to and from schools.

FACTORS AFFECTING IMPLEMENTATION OF HELMET LAW IN TANZANIA

According to World Health Organization, the helmet program demands raising the quality of helmets being used by cyclists and motorcyclists through observation of recognized international safety standards.^{lxi} The Road Traffic Act does not impose an obligation to wear helmets of prescribed quality; it merely requires the driver and the passenger to wear helmets. On the other hand, protective helmets should accommodate all people including women and children above a certain minimum age, particularly 10 years. The existing helmet is not designed to cover the head of an ordinary African lady with long hair. From the experience, most female passengers do not properly wear or fit a helmet for fear of tarnishing their hair. Similarly, children do not wear helmets for reasons related to the helmet size which is inappropriate to their age. The helmet law must accommodate all the age groups in the society by designing protective helmets to suit different users.

Secondly, the law is strictly enforced in urban areas for reasons related to the availability of traffic officers. Most drivers in the rural areas do not possess helmets despite operating motorcycles for gain. The law does not require the driver and passengers to wear helmets on all types of roads, including rural roads. This for obvious reasons is related to people's awareness and lack of enforcement organs in the rural areas. Although there is no record to show the rate of road crashes in the rural areas, there is a need to ensure that all the drivers and passengers wear helmets at all times when using the public road, regardless of the location.

Similarly, the laws need to state clearly helmet wearing requirements to children according to their sizes, and other protective conditions as per the best practices in other jurisdictions.

Thirdly, the sanction imposed for non-compliance appears to be discriminatory since passengers of a motorcycle are not punished. The current philosophy in Mainland Tanzania is for the driver to beg a passenger to wear a helmet, i.e., passengers have the discretion to wear a helmet. Much as it may be construed to be infringing upon the civil liberties of riders, it is appropriate to impose an obligation to every person using a motorcycle to wear helmets, failure of which should be an offence. On this note, we commend the law in Zanzibar which makes it an offence for any person who fails to properly wear a protective helmet, even though there is a reluctance to the enforcement of the law due to political interferences.

Fourth, Tanzania, like any East Africa country, is faced with an influx of substandard helmets. The enforcement of quality standards in Tanzania is said to be affected by several things including the issuance of pre-shipment verification with wrong or false information due to lack of seriousness and commitment.^{lxiii} On the other hand, testing of imported products including a helmet is done by way of sampling; hence the effectiveness of the process depends on the applied sampling techniques. It is important to note that some importers mix the substandard product with genuine products. A sample may not represent the actual quality of the shipment. There is a need to devise other mechanisms for an effective sampling of shipments. Furthermore, there is a problem of limited personnel for surveillance purposes, which makes it hard to detect counterfeit or substandard products given the porous nature of Tanzania borders. A constant inspection of helmet shipments is needed at entry points.

Fourth, the Road Traffic Act (Mainland) gives power to the Minister to exempt some drives from wearing helmets. This provision does not state grounds for an exemption or the circumstances which may necessitate a grant of exemption. As a matter of law and good practice, Minister's powers must be limited by the Parent Act.³⁶ It is a considered opinion that the law must state the nature and/or categories of persons that may be exempted from the obligation of wearing helmets, and the procedure to be observed.

GENERAL RECOMMENDATIONS AND CONCLUSION

Road safety generally is a concern of every person since there is a shared responsibility. The government institutions including the Tanzania/ Zanzibar Bureau of Standards, the Police, and other regulatory agencies must cooperate to set plans and strategies to ensure compliance with road safety laws. To ensure effective enforcement of helmet law, several issues need to be addressed. First, the government must adopt a law or otherwise amend the existing law to require drivers and passengers of motorcycles to wear protective helmets at all times, a failure of which one must be subjected to a penalty.

Similarly, the helmet law should also be a requirement for all riders of bicycles including children who use bicycles to and from school in most parts of Tanzania. This is because there are health benefits of using non-motorized means of transport including bicycles and walking. A good number of countries have laws that require riders of bicycles including children below 18 years of age to wear helmets. Such countries with bicycle helmet requirements include Australia, Argentina, Canada, Chile, Croatia, France, South Africa, and so forth. It is worthy to protect the majority of Tanzanians, who use bicycles as means of transport in the rural and urban areas by requiring them to wear helmets while riding in public places. The experience in some other countries shows that the only proven way to get people to wear helmets is through enactment and enforcement of universal helmet law.

Secondly, to ensure uniformity of helmet standards, Tanzania must sign and ratify international instruments providing for helmet and vehicle standards. Concerning helmet standards, the government should ratify Regulation No.22 of 1972 which provides for uniform conditions for the approval of helmets for drivers and passengers of motorcycles; independent testing mechanisms, and product marking. Furthermore, Regulation No.22 provides the structure and components of the protective helmet including the hard outer shell containing an additional means of absorbing impact energy, a retention system, ear flaps, a neck curtain, detachable peak, a visor, and a lower face cover.

By signing and ratifying the instrument, the government of Tanzania will be obliged to import helmets with prescribed quality and standards. UN Regulation 22 ensures that a consumer buys a crash helmet which protects them on a motorcycle against head injuries and fatalities. It

obliges manufacturers to produce an effective motorcycle crash helmet; hence it gives a consumer confidence in the product.

Thirdly, the Road Traffic Act (Mainland Tanzania) must be amended to require drivers and passengers to wear helmets of the specified standard. This could be achieved by requiring drivers to wear helmets that contain international standards mark and that have been approved by TBS. Since the international regulation on helmets allows the state to insert the standard mark of a respected authority on the helmets, TBS and ZBS should continue inserting a particular mark on all helmets that are being tested and found to be suitable for Tanzanian uses.

Similarly, the Road Traffic Act and other relevant laws should specify types of helmets for driver's and passenger's use. Looking at the four styles of helmets, the full-face helmet appears to give full protection to the brain and associated parts. This is because the full-face helmet covers the entire head, face, and lower jaw, with a narrow visor for the rider to see. Looking at the nature of the roads and roadsides, and the post-crash care systems in the country, it is recommended that the law should only allow the use of full-face helmets for motorcycles and tricycles for gain. This will protect passengers against serious eye and brain injuries. As for motorcycles used for private purposes and riders of bicycles, they should be given the option to wear full-face or open-face helmets.

The last but not least, the government should adopt strong helmet use promotion programs in the countries which should be accompanied by other non-legal measures such as motorcycle rider training, licensing, and ensuring visibility of riders through protective clothing and reflectors. There is a need to engage other non-state actors in promoting public awareness in road safety matters. Moreover, this should be accompanied by the construction of roads that meet the prescribed safety standards with pedestrian crossings and separate roadsides for cyclists.

Conclusively, the protection of drivers and passengers of motorcycle and tricycle requires wearing of helmets which meet international standards. On the other hand, the National Road Safety Council, the Traffic Police, and other institutions must promote public education to road users on the importance of wearing helmets. This can be achieved through public campaigns, commercial advertising by helmet companies, publicizing the law on helmets through mass

media, increasing visibility through strict enforcement at designated checkpoints and roadblocks.

ENDNOTES

ⁱ UNECE, United Nations Motorcycle Hemet Study, New York, Geneva, 2016, p.5

ⁱⁱ Ibid, p.6

ⁱⁱⁱ Ibid, p.6

^{iv} Ibid., p.7

^v It is estimated that the aggregate saving of up to 676 billion USD will be achieved in 2020 if all states through enforcement of helmet wearing policies prevent fatalities and injuries.

^{vi} This is a lead agency for road safety in the United States of America

^{vii} National Highway Traffic Safety Administration; Estimating Lives and costs saved by motorcycle helmets, 2010, Washington (DC): National Highway Traffic Safety Administration, US Department of Transportation (available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812388> , retrieved on 5 December 2019, at 12.30 hours.

^{viii} National Highway Traffic Safety Administration; Estimating Lives and Costs saved by Motorcycle Helmets with Updated Economic Cost Information, October 2015 (accessed at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812206> , on 5 December 2019, at 13.00 hours

^{ix} WHO; Why are helmets needed? p.16 (available at https://www.who.int/roadsafety/projects/manuals/helmet_manual/1-Why.pdf , accessed on 5 December 2019.

^x Jimoku Hinda Salum, Angela E. Kitali, Hannibal Bwire, Thobias Sando & Priyanka Alluri (2019) Severity of motorcycle crashes in Dar es Salaam, Tanzania, Traffic Injury Prevention; (accessed at https://www.researchgate.net/publication/331884468_Severity_of_motorcycle_crashes_in_Dar_es_Salaam_Tanzania , retrieved on 5 December 2019.

^{xi} Ibid.

^{xii} SUMATRA; Improvement of Road Safety in Tanzania Mainland, Final Report, June 2017, at p.14

^{xiii} SUMATRA; Improvement of Road Safety in Tanzania Mainland, Final Report, June 2017, at p.16

^{xiv} United Republic of Tanzania (URT); Crime and Traffic Incidents Statistics Report, January to December 2016, at pp.5,6 and 7.

^{xv} Ibid.

^{xvi} UNECE, United Nations Motorcycle Hemet Study, New York, Geneva, 2016, p.22; also, in *WHO; Helmets: A Road Safety Manual for Decision Makers and Practitioners*,2006, p.9

^{xvii} Ibid.

^{xviii} The right to life is recognized and protected under a number of legal instruments, including article 3 of the Universal Declaration of Human Rights 1948, article 6 of the International Covenant on Civil and Political Rights, 1966; article 4 of the African Charter on Human and People's Rights, 1986; article 14 of the Constitution of the United Republic of Tanzania.

^{xix} Cap 168 R.E 2002

^{xx} Cap 317 R.E 2002

^{xxi} Regulation 13(i) and (j) of the Transport Licensing (Motor Cycles and Tricycles) Regulations, 2010

- ^{xxii} Regulation 13(g) of the Transport Licensing (Motor Cycles and Tricycles) Regulations, 2010
- ^{xxiii} Regulation 28(1)(k) of the Transport Licensing (Motor Cycles and Tricycles) Regulations, 2010
- ^{xxiv} Cap 317 R.E 2002
- ^{xxv} Regulation 9(1) of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009; also s.20(4) and (6) of the Zanzibar Standards Act, 2011
- ^{xxvi} Regulation 9(2) of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009; also s.19 of the Zanzibar Standards Act, 2011
- ^{xxvii} The application is made at least one week before arrival of the imported shipment.
- ^{xxviii} Regulation 3(3) of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009
- ^{xxix} The Fees include: batch certificate fee which is equivalent to 0.2% of the Cost and Freight value; testing fees as per the schedule of fees given by the Bureau; and application fees.
- ^{xxx} Regulations 4 and 8 of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009; also s.20(1), (2) and (3) of the Zanzibar Standards Act, 2011
- ^{xxxi} Regulation 5 of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009
- ^{xxxii} Regulation 8(2) of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009
- ^{xxxiii} Regulation 13 of the Standards (Compulsory Batch Certification of Imports) Regulations, 2009
- ^{xxxiv} This was set in place by the British Road Research Laboratory after the Second World War (WWII).
- ^{xxxv} UNECE, United Nations Motorcycle Helmet Study, New York, Geneva, 2016, pp.23 and 24
- ^{xxxvi} Ibid.
- ^{xxxvii} This must be of non-metallic materials (resistant to corrosion), and should not affect wearer's ability to hear. Ventilation may be provided to increase comfort of the rider.
- ^{xxxviii} This is a liner material provided to absorb impact energy. It must be of expanded polystyrene or any material with the same properties.
- ^{xxxix} This is a soft material to ensure close fit to the wearer. It must be of polyethylene foam or any suitable material with the similar properties.
- ^{xl} This is a complete assembly that prevents helmet from coming off the head. It must be sweat-resistant, non-irritant and not likely to cause skin disease.
- ^{xli} A transparent protective screen extending over the eyes and covering part or all of the face –It must be made of materials that are known not to cause irritation, allergic or toxic reactions amongst a significant proportion of users in a normal state of health; it should be capable of being lifted
- ^{xlii} Parts of retention system which passes under the wearer's jaws to keep the helmet in position. The Chin strap shall not be less than 20mm wide under a load of 150N.
- ^{xliii} S. 5 of the Zanzibar Standards Act, 2011
- ^{xliv} S.16 of the Zanzibar Standards Act, 2011 defines compulsory standard to include standard which seek to protect consumers or users against danger to health or safety, protect public welfare and safety, and ensure imported products meet the prescribed standards
- ^{xliv} L.N 35 of 2005 (Made under the Road Transport Act)
- ^{xlvi} Regulation 3(2), (3) and (4), *ibid*
- ^{xlvi} Regulations 5 and 6, *ibid*
- ^{xlvi} Regulation 4(2), *ibid*
- ^{xlix} The Traffic Act, Cap 403 as Revised in 2015
- ¹ Indian Standards for protective helmets are known as IS 4151. As a matter of law this standard must appear at the back of each helmet.
- ^{li} <https://www.dw.com/en/german-court-sikhs-have-to-wear-helmets-on-motorbikes/a-49475615> , retrieved on 6th December 2019, at 17:40 hours
- ^{lii} National Road Traffic Act, Act 93 of 1996.
- ^{liii} Regulation 207, *ibid*

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- ^{liv} WHO; Child Development and Motorcycle Safety, Regional Office of South-East Asia, 2015, at p.5
- ^{lv} The general practice in countries such as Germany, Belgium, Portugal, Sweden, Austria, Norway, and so forth, is for definition of a minimum age for a child to ride as a pillion passenger on a motor cycle, in which case a child bellow 2 years is prohibited from riding as a passenger on a motor cycle.
- ^{lvi} WHO; Child Development and Motorcycle Safety, Regional Office of South-East Asia, 2015, at p.6
- ^{lvii} *ibid.*, p.16
- ^{lviii} *ibid.*, p.33
- ^{lix} These conditions have been adopted in the laws of Sweden, United Kingdom, Denmark, Netherlands, and Austria.
- ^{lx} WHO; Child Development and Motorcycle Safety, Regional Office of South-East Asia, 2015, pp.34-35.
- ^{lxi} WHO; Helmets: A Road Safety Manual for Decision-Makers and Practitioners, 2006, p.83.
- ^{lxii} This happens for the products whose standards are tested by foreign licensed departments/laboratories

