K4D | Knowledge, evidence and learning for development

Lessons from road safety research and policy engagement in Pakistan, Nepal, Tanzania

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Question

What are the lessons from DFID funded road safety research and policy engagement in Pakistan, Nepal and Tanzania?

Contents

1. Executive summary

DFID invests in research on transport infrastructure to promote knowledge on cross-cutting issues, such as road safety, and to influence standards and practices across the sector. This rapid desk based study provides lessons from DFID funded road safety research and policy engagement in Pakistan, Nepal and Tanzania. To this end, this report considers recent projects/studies published post-2005 only. DFID also has a number of initiatives linked to developing the capacity building of national governments to make greater use of research findings in road safety. For example, the Global Road Safety Facility has developed new standards and approaches to road safety issues, influencing both the World Bank (which in 2015 made road safety a mandatory component of all road projects) and partner country governments. Furthermore, the Independent Commission for Aid Impact (ICAI) has reported positive impacts on road safety standards and practices through DFID investments in road safety projects. The Research for Community Access Partnership (RECAP) is developing low-cost solutions for rural roads, and we found evidence of uptake of new road standards by national governments.

Broadly the reports examined showed that all DFID funded projects have been generally successful in improving road safety, while providing recommendations and identifying associated challenges in Pakistan, Nepal and Tanzania.

For Pakistan, five studies were identified, all of which focused on aspects of the £265 million DFID contribution to the Pakistan Economic Corridors Programme (PECP), which is co-funded with the Asian Development Bank (ADB) who invest approximately $300 million. Whilst PECP focused on road building, it also had several integral road safety projects. These left a major road safety legacy including a road safety strategy that was approved by the Pakistan Government and also the country's first national transport policy. It could be argued therefore that a key lesson from PECP is that government road safety policy can be influenced when provision is made specifically for the road safety agenda within large road building programmes. The reports also highlighted that for road safety projects to be successful in Pakistan there needs to be adequate political buy-in and coordination is required across responsible ministries. Further, the reports suggested that more effort is required within the country to develop an appropriate legal framework and enforcement of road safety.

Seven studies were found on DFID funded road safety initiatives in Nepal. These initiatives concern: funding infrastructure improvements (crash barriers); providing sophisticated traffic analysis software; equipping police officers in Nepal's Metropolitan Traffic Police with a range of body-mounted digital recording equipment; assisting government policy development to establish a road safety act and a road safety action plan; providing support to establish road safety assessment procedures, and road safety awareness campaigns. There has been demonstrable evidence of the success of the project investing in infrastructure improvements, in terms of lives saved. The projects associated with helping to influence policy have contributed to establishing a road safety act. The lasting benefits of the providing police officers with equipment and the road safety awareness campaigns are difficult to quantify as the reports are recent. The one project which has not appeared to be successful is that associated with the provision of sophisticated traffic analysis software. This is probably due to a combination of factors including a lack of capacity (in trained personnel, the lack of a champion and inadequate IT support) the need to collect data on an ongoing basis to populate the software and the sophistication of the software.

Four recent studies of road safety projects in Tanzania were identified. The studies focused entirely on rural road safety, were relatively low cost fact-finding type studies based on a review of the literature and the collection of empirical data via questionnaires and from official records. The studies reported provided little in the way of funding for local interventions. Three of the studies focused on the safety of motorcycles. The studies investigated how road safety could be improved via: the use of technologies (mobile phones, messaging and ride hailing applications); through a variety of types of capacity building initiatives; local collaboration between road designers, engineers and the national and local government and improved legislation.

2. Road Safety Research

a. Pakistan

The World Health Organisation estimates approximately 25,781 annual road fatalities in Pakistan, which equates to 14.3 road traffic fatalities per 100,000 population (WHO, 2018). Table 1 presents recent DFID funded programmes and studies addressing road safety in Pakistan.

Table 1: DFID funded road safety projects in Pakistan

Study/Project	*Observation duration*	*Main aims/achievements*	*Experience and lessons learned*
ICAI (2018)	2015-2016	A performance review of DFID's urban infrastructure and transport investments which includes investments in Pakistan	Pakistan Economic Corridors Programme (PECP) (financing construction of highways costing £265 million) was reviewed and praised for helping local and national governments in road safety measures (no data was presented). A value for money matrix was developed in collaboration with the Asian Development Bank (ADB) to assess various sustainability goals including improving road safety. The matrix was adopted by the ADB for its quarterly monitoring.
DFID (2019)	2015-2019	PECP £265m project to improve Pakistan transport infrastructure (including road safety).	As one of the outputs of the project a Road Safety Strategy 2018-2030 was approved by Pakistan Government and also the country's 1st National Transport policy which covers road safety was set up. A Steering Committee for 'Development of a National Road Safety Plan for National Highways and Motorways of Pakistan' has endorsed, among other things, the setting up of a lead road safety agency and suggested that a mandate be provided to the Ministry of Communication in setting up and arranging finances for the agency.
ADB (2015)	Feb-Jul 2015	Asian Development Bank (ADB) and DFID collaboration on providing technical assistance[1] through capacity development to	Reported 30,000 fatalities by road accidents in 2010 Highlighted the need for:

		Pakistan helping to meet its development goals by 2025. This is part of a PECP project	- Establishing a coordination framework across responsible ministries - Strong political support - Data collection for benchmarking and evaluation - Legal framework and enforcement Government efforts in addressing road safety was reported to be unsuccessful in some aspects due to a lack of commitments from the political hierarchy and unreliability of funding Enhancing government capacity was reported to be essential in order to achieve effective investments
Government of Pakistan (2019)		Government of Pakistan reported on the Technical Assistant for road safety from PECP project	The following were highlighted as the key priorities: - The need for a holistic approach for improving road safety - Improving road safety management - Improving road users behaviour and driving culture - Improving vehicles standards and safety - Enhancing post-crash responses
Mott MacDonald (2017)		An evaluation of the effectiveness of Asia Community Access Partnership (AsCAP) Project for Pakistan including PECP project	Road safety is identified as the only components of the PEPC project which considers rural roads

[1]The components of this Technical Assistant (TA) is provided in Appendix A

b. Nepal

In global terms Nepal is ranked 20th in the world for fatality rates and 127th in terms of the fatality risk (Fletcher, 2013). This pattern reflects that Nepal has very dangerous roads but low vehicle ownership. The World Health Organisation estimates that the actual road fatality numbers in Nepal are about 4 times higher than the official reported figures for the country. This gives another indication of the levels of uncertainty surrounding these various statistics (Fletcher, 2013). Table 2 summarises recent DFID funded programmes and studies addressing road safety in Nepal.

Table 2: DFID funded road safety projects in Nepal

Study/Project	*Duration*	*Main aims*	*Experience and lessons learned*
DFID (2018)	2014-2018	The DFID grant for this programme, Strengthening Road Safety in Nepal Programme (SRSNP), was managed through GRSF. SRSNP had two aims: - To improve Government of Nepal's ability to improve road safety - To procure and construct crash barriers to improve safety of the most dangerous Road Sector Development Project (RSDP) in western Nepal.	The SRSNP was the first stand-alone road safety programme in Nepal and was specifically designed to reduce the impacts of unsafe roads in the mountainous regions of west Nepal that suffer from geographical exclusion and high poverty rates. It has: - Constructed 73km of steel crash barriers alongside 700km of roads which has reportedly saved 42 lives during the programme period; - Avoided at least seven serious road crashes in west Nepal; - Helped to better protect pedestrians, often women and children who are particularly vulnerable to road accidents; - Delivered a practical road safety database system/software for the Department of Roads and Nepal Police - Established Nepal's first Road Safety Act; - Revised the Transport Policy, Public Roads Act and Regulations, and conducted a pilot project demonstrating road safety actions for major highways; - Supported the implementation of the most critical activities to make progress against the Nepal Road Safety Action Plan (2013-2020); - Successfully Increased Nepal government's commitment to road safety in major highways and rural roads; - Identified and trained key road safety professionals, civil servants and traffic police personnel;

			- Prepared course materials for university graduate and undergraduate students. This programme proved to be effective in achieving high level political and bureaucratic ownership for straightforward solutions for road safety, readying them to invest more to curb losses due to road crashes and led to a request for further funding from the World Bank.
Fletcher (2013)		Finding evidence of improved road safety in Nepal using a rapid desk based study to investigate potential funding by DFID in road safety improvements in Nepal	The rapid desk based study made the following observations: - The groups with the most road injury risk were identified as: young employed males from low-income families, pedestrians, motorcyclists and drunk drivers. The surveys also found that many more people, both poor and non-poor, are being killed and seriously injured in road crashes than police data indicate - W steel beam type barriers are inappropriate for Nepal, for motorcyclists and heavy vehicles in particular and also where limited space is available on the roadside - Crash data reporting and collection systems in Nepal are reported to be poor. This means it is very difficult to get a clear impression of crash and casualty patterns across the country from systematically collected sources.
Parajuli *et al.* (2016)		A Nepal government document partly evaluating the Micro-computer Accident Analysis Program (MAAP5) software that was funded by DFID through its Road Maintenance Project (RMP)	The database system using sophisticated MAAP5 software from the UK could not be sustained following only a few years of operation and the completion of RMP. The system was created with a project-based approach and did not have long lasting ownership to manage, operate and maintain it. It is possibly due, in part, to the absence of legally binding requirements for collecting and maintaining crash records for road safety analysis and in part due to the lack of ongoing funding support following the closing of the RMP. This could also be in part due to the lack of a responsible unit within the Government agencies to look after the database system (ownership). Further the professionals involved in managing road safety may not have realized the need and importance of crash data.
Government of Nepal and World Bank (2013)		This Road Sector Assessment was prepared by the World Bank with the active involvement of the Government of Nepal, DFID, the	Analysis of accident data found that there were 1,700 deaths due to road accidents during 2009 - 2010. This amounts to 17.1 fatalities out of 10,000 vehicles during the year.

		Asian Development Bank (ADB) and the Swiss Agency for Development and Cooperation (SDC). The purpose of this study was to determine the current status of the road sector in Nepal, identify the main issues and problems it is facing, and provide practical means to address them.	The study found that trucks and buses cause the majority of fatal accidents on the Strategic Road Network (SRN) while the victims were mainly pedestrians (due to reckless driving). As for the Local Road Network (LRN) it was suggested that road and terrain conditions have a major impact in rural roads safety. Detailed analysis of the LRN accident data was suggested to be undertaken and limited funding for LRN safety was also highlighted. Guidelines for social assessments and safeguard management frameworks, for road safety, and for monitoring and evaluation are lacking for both the SRN and LRN. Regulatory issues were also discussed including driving tests and traffic rule enforcement. Road safety engineering was observed to be unregulated and road safety management was reported to be weak due to the lack of collaboration between 4 different responsible ministries. The report made the following suggestions: - Develop a Road Safety Act and Road Safety Plan and include specific LRN safety measures. - Define a lead agency for coordinating road safety in the SRN and LRN and involve a mix of private and public sector stakeholders in implementing road safety activities. - Improve capacities and resources of all those responsible for road safety. - Carry out regular collection and analysis of accident data on SRN and LRN and respond to common causes of accidents. - Require road projects to include road safety measures in their designs and make road safety audits mandatory for SRN and LRN, including them as part of road condition surveys. - Improved maintenance is also likely to have a positive impact on road safety in both the LRN and SRN.
The World Bank (2017)		Report of implementation and completion of a GRSF grant (US$7.47 million) for a road safety project, partly funded by DFID. World Bank designed the Road	DFID's consistent support for the road safety agenda was reported to strengthen the project's preparation and delivery (no statistical data was provided to support this statement, but was noted as a comment by a stakeholder). Further to the RSSP, the Government of Nepal allocated 10% of the maintenance fund to maintain the road safety features as part of a

		Safety Support Project (RSSP) in collaboration with Government of Nepal and DFID Nepal.	formal policy reform.
UNOPS (2019)		This project was under DFID's Integrated Programme for Strengthening Security and Justice to improve security and justice services for 1.85 million underprivileged people - including 1 million women and girls.	DFID funding enabled UNOPS to equip police officers in Nepal's Metropolitan Traffic Police with a range of body-mounted digital recording equipment. The body-mounted cameras record traffic, as well as the interactions the officers have with the public, which can then be accessed via a computer-based retrieval archive. Unlike in the past, road users who dispute infringement claims made by the traffic officers can now ask for further explanation. And the burden of proof lies with the officer with the camera, who must show evidence of an infraction before issuing a ticket. Footage from the cameras is also used to both educate people on traffic laws, as well as to help raise awareness of unsafe driving practices. The equipment has been effective in catching traffic rule violators and in improving both traffic and road users' behaviour in Kathmandu
iMC (2018)		The document reports the different road safety initiatives undertaken as part of DFID funded Rural Access Programme 3 (RAP3) in Nepal.	The Road Safety initiative of the RAP3 is to assist the Department of Local Infrastructure Development and Agricultural Roads (DoLIDAR) in the design of a Road Safety Assessment procedures and to support the opening of a Road Safety Unit within DoLIDAR. Under the RAP3, Road safety awareness campaigns were conducted for local school children in newly constructed road corridors of Mugu, Kalikot and Bajura. Training courses have been carried out for seventy engineers who now have a good understanding of Road Safety Engineering and to carry out safety assessments. Three out of six newly constructed roads have substantially completed road safety surveys. The following activities are planned for the future: - To conduct road safety audits on newly constructed roads - Road safety awareness campaign for school children will continue

c. Tanzania

Road accidents have steadily increased in Tanzania in recent years, with the number of road traffic deaths nearly doubling since 2007 (GRSP, 2019). As a consequence, the country is losing an approximated 3.4% of their GDP every year (WHO, 2018). It is estimated that that there were approximately 16,211 traffic accident related deaths in Tanzania annually, four times more than official government figures (WHO, 2018). Table 3 presents recent DFID funded programmes and studies addressing road safety in Tanzania.

Table 3: DFID funded road safety projects in Tanzania

Study/Project	*Duration*	*Main aims/achievements*	*Experience and lessons learned*
Bishop *et al.* (2018); Bishop *et al.* (2019)	2017-2019	The overall aim of the project was to enhance the understanding on safe motorcycle and three wheeler use for rural transport. In particular the project aimed to improve knowledge and understanding concerning effective ways of enabling rural people to benefit from the safe use of motorcycles and three wheelers, with an emphasis on rural motorcycle taxis, rider training, appropriate regulatory frameworks and realistic enforcement methods.	The DFID funded project conducted a stakeholder mapping and engagement, review of regulatory frameworks, enforcement methods and rider training, and survey of benefits of motorcycle and three-wheeler taxis (from 280 respondents). The project also investigated the potential use of technology (mobile phones, messaging and ride hailing applications) to enhance safe motorcycle and three-wheeler use. The project observed that a comparatively high proportion of riders learned to ride through informal tuition but have received formal training since then. However, the quality of the formal training appears to be questionable. The project made some key recommendations for road safety management including legislations and augmenting crash data. In the case of two- and three-wheelers, the project suggested that legislations may include: - Helmet and protective clothing legislation - Training and licensing requirements (particularly for commercial operators) - Roadworthiness and maintenance standards of vehicles - Overloading – number of passengers/amount of goods carried Crash data also needs to be supplemented with data on intermediate indicators such as: - Helmet wearing surveys - Speed surveys

			- Wearing of protective and reflective clothing - Vehicle roadworthiness and maintenance surveys - Number of passengers/amount of goods carried - Rider's age and level of experience - Training and licensing Through this project, a motorcycle taxi association operational manual and a curriculum for training motorcycle and three-wheeler riders with a focus on motorcycle taxis was developed. The Traffic Police are keen to see the manuals being adopted as the national standard. This will involve recommendation by the Ministry of Home Affairs and then adoption by the Ministry of Works, Transport and Communication.
Bishop and Malekela (2016)	2016	The DFID funded project, Improving Rural Access in Tanzania, developed a Guidance Note for Motorcycle Safety on Low Volume Roads and piloted the Note during the upgradation of rural roads in two districts.	The Guidance Note on motorcycle safety was developed as a result of the findings of research specifically that the vast majority of motorised vehicles on rural roads are motorcycles and that injury rates among motorcycle drivers are incredibly high. The Guidance Note was designed to be an easy-to-use reference document for District Engineers working in Local Government Authorities, compiling together a comprehensive set of recommendations to improve motorcycle safety. The Guidance Note covers topics including: - Safety improvements to all road types – new and existing, sealed and unsealed - Providing a safe width and cross-section - Providing a safe riding surface - Ensuring the surrounding environment is 'forgiving' - Encouraging the use of appropriate speeds - Providing warning of hazards
Bishop and Amos (2015)	2015	Improving safety of motorcycle taxis (i.e. boda-boda) across Tanzania including the rural areas	Developing a regulatory framework for Tanzania was suggested to have the potential to be adopted by other African countries to save lives of millions. Dangerous driving behaviour of boda-boda drivers were identified as key factors contributing to accidents, including; speeding, ignoring red lights, driving on footpaths and driving on wrong direction Data gathered on number of fatalities related to motorcycles showed a peak of around 1500 deaths in 2013 that was reduced to around 1000 in

			the next year. The number of injuries was reduced from around 6500 to around 4000 in 2013 and 2014, respectively. The number of motorcycles were increased during the same period. However, the crash data did not specify the boda-boda related accidents. Reporting and recording accidents was reported as one of the shortfalls of the Tanzanian traffic management system. Reviewing existing boda-boda associations found one (Pwani associations) without any law on driving licence, number of passengers and use of safety equipment. The formation of associations in some parts of the country (e.g. Dar es Salaam) was identified as a potential factor in reducing accidents. Strong leadership, engagement with stakeholders, developing effective guidance for management, support from government, and collaboration with traffic police were identified as important factors to assure the effectiveness of the boda-boda associations
Guerrero *et al.* (2013)	9 month	Three AFCAP funded studies on measures for preventing road traffic injuries were as follows: i) Quantifying the magnitude and defined the characteristics of rural roads traffic injuries	The rural road traffic injury rate in Tanzania was reported as 4% per year, compared to 0.33% for the UK. Repeated data collection, 8-9 months after the initial one, showed an increase in number of injuries for all investigated areas and was suggested to be partly due to increased traffic and vehicle ownerships. The study reported the following challenges of using surveys as a method of data collection: - Defining/identifying a household - When data collection (interviews) was repeated with a different member of a same family different results were obtained, questioning the robustness of the data collection method especially in less educated areas - Recalling the last crash as part of the questionnaire, as in some areas rural societies were reported to not being familiar to the concept of weeks and months
		ii) evaluating the impact of a rural road traffic injuries prevention, community-based, programme on accidents rates.	One example of a community involvement of an effective road safety improvement was described, were resident of a village raised money to make some speed bumps It was found that after introducing the programme to rural communities, the number of injuries increased rather to decrease. The increase rate (50%) was even higher than a control site (23%) The study also showed that number of motorcycles involved in road traffic

			injuries were also increased after the intervention (see Appendix B). The increase in number of injuries was attributed to an overall increase in number of vehicles, and also increased number of motorcycles. Having said that, number of pedestrians injured in the traffic accidents decreased by 7%. Average speed of motorcycles on one of the observed roads slightly decreased after implementation by around 3%. While on another site, it was 10% higher during the follow-up data collection. The follow up data showed a decrease in the severity of the injuries as less victims required medical attention, less victims stayed one or more nights in hospital, while no victim was permanently disabled. Education of road safety measures to children was gauged to be successful, from an average score to very good. Potential bias from the interviewees during the follow up data collection was also reported, as people may thought that mentioning being involved in an accident might have some benefit for them
		iii) similar to the first study but focused on boda-boda drivers	Rate of traffic injuries for boda-boda drivers was reported as 63.34% per year, while in one location it was 100%. Human error was identified as the main cause of crash (64%), while other causes were road and weather conditions. The accuracy of data was questioned, as it was only collected via questionnaires. Use of helmet were increased among the drivers who received one, while using high visibility jackets increased from 0 to 91% after they were given to drivers. Poor quality testing and licensing for boda-boda drivers were also reported. Lack of practical elements in teaching and using theory based lectures in very large rooms by Tanzanian authorities were mentioned as factors that makes trainings ineffective. The study made the following recommendations: - Needs for improve and enforce laws on road safety and also use high-quality safety equipment were highlighted - The need for more collaboration between road designers, engineers and government in making road safety as the main priority was identified. - The need for research looking into the main causes of rural road accidents and the way that design and construction of the road can address those were raised.

			- Need for research on impact of drivers behaviour on rural road safety, and also the impacts of environment and terrain, as well as people incomes and education. - New research on the economic losses from road injuries was suggested as a motivation for politician involvement in improving road safety - Longer evaluation period and wider geographical, compared to this study, area were suggested for future research on road safety

3. Conclusion

This report has reviewed the findings and lessons learned from road safety research and policy engagement in Pakistan, Nepal, and Tanzania.

Pakistan Economic Corridors Programme (PECP) is a £265 million programme that includes a major road safety project funded by DFID, with a co-financing from ADB for approximately $300 million. However, the project has not been formally evaluated and therefore no evaluation data is available. Nevertheless, its progress towards safety has been reported to be positive and the target on the national road safety indicator has been substantively met; for instance, it was admired for helping local and national governments in preparing and enforcing road safety related guidance, regulations and laws (DFID, 2019). PECP support to road safety has seen significant achievements with the approval and launch of the National Road Safety Strategy 2018-2030 (DFID, 2019). The need for involving government was identified in previous studies. The lack of a database on traffic accidents and injuries are also highlighted in other studies, which was identified as a necessity for any road safety project evaluation.

Road safety projects in **Nepal** have been broadly successful in achieving their main objectives. For instance, World Bank and Government of Nepal carried out a comprehensive implementation completion review (ICR) including a limited impact assessment (an acceptable approach when there are data limitation) and reported that 42 lives were saved during a 4-year period as a result of a DFID funded project. A road safety database system was also developed for Nepal, while previous studies in Nepal showed that the earlier database was not accurate. Government of Nepal allocated 10% of maintenance fund to maintain the road safety features as a result of the key learnings from a DFID funded project. Another DFID funded project was involved in establishing Nepal's first Road Safety Act and preparation of associated regulations. The other objective was capacity building which was achieved through training local key road safety professionals, civil servants and traffic police personnel. The lack of local expertise in road safety was reported previously.

One DFID funded project for developing a database system was criticised by local government for the lack of long lasting ownership to manage, operate and maintain it. This was suggested to be partly due to the lack of a central responsible organisation. Regulatory issues were also discussed including driving tests, traffic rule enforcement, and road safety engineering. A lack of collaboration between the responsible parties and organisation in the absence of the central organisation was reported in a couple of studies.

The studies found on **Tanzania**'s road safety projects were associated with motorcycle and three-wheeled vehicles. The studies reported on the use of technologies for enhancing road safety including mobile phones, messaging and ride hailing applications. The studies suggested that the impacts of road safety projects could be improved via increased legislation, capacity building projects to enhance road safety training and greater collaboration between road designers, engineers and the national and local government.

Developing a common methodology for data collection and assessment of road safety projects can help to achieve a more reliable and comparable evaluation across different road safety projects. The lack of such a methodology was suggested to underestimate the impacts of some reviewed projects. For instance, one study reported that the number of injuries increased after safety interventions, compared to a control area where no interventions took place. However, the study

ignored the fact that the number of vehicles in the intervened area had increased more than the control area during the same period. Data collection through interviews were reported to be unreliable due to bias. Advances in data and technology have created new pathways for impact evaluation. For instance, DFID funded ieConnect programme is developing real-time geo-referenced crash maps by employing artificial intelligence to collect data on road traffic crashes from Twitter (The World Bank, 2016). Once this process has been successfully tested, the code will be open and available for data collection in other countries.

Apart from the recent research and policy dialogues presented within the Section 2 of this report, DFID is also providing funding to Global Road Safety Facility (GRSF), a global partnership programme administered by the World Bank. It was established with a mission to help address the growing crisis of road traffic deaths and injuries in low- and middle-income countries. GRSF provides funding, knowledge and technical assistance that enhance World Bank work in the transport sector and leverage road safety investments. GRSF works with client countries to help develop sustainable and action-oriented agencies that are capable of coordinating activity across the multiple sectors engaged in road safety, responding to evolving needs and increasing resilience. DFID funded road safety projects, including GRSF and PECP, and their impacts were evaluated by the ICAI (2018), who stated a satisfactory achievement in most areas, and highlighted projects' positive impacts on partners countries road safety standards and practices.

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Appendix A: Components of road safety technical assistant provided to Pakistan

	Brief description of TA component	*Allocation £ million*
1	Road Safety Initiatives	5.0
2	Transport Sector Policy and Economic Corridor planning	2.0
3	Axle load control and asset management	2.0
4	Equipment	1.0
5	Equitable tolling policy	1.0
6	Social impact assessment and mitigation	1.0
7	Monitoring and Evaluation	3.0
	TOTAL ALLOCATION	**15.0**

Source DFID (2014)

Appendix B: Impact of a community involvement programme on road crash rate and injury characteristics in Tanzania

See: Figure 1: Road Traffic injuries by type of vehicles (Guerrero et al., 2013: 32), *http://research4cap.org/Library/AMEND-Tanzania-2013-LVR+Traffic+Injury+Studies-AFCAPgen060g-v130612.pdf*

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