

Strategic Activities by Road Safety Outputs Cont'd

1. A cohesive and efficient road safety administrative system (Improved Road Safety Management)

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
14	Institute and adopt uniform traffic law violation booking system to harmonise enforcement efforts		2017				FRSC, SGs/SMVA NPF	Existence of traffic rule violation booking system Zero incident of multiple booking for same violations
15	Review current FRSC Act to enable full enforcement of schemes to include suspension of operations or premises seal-off		2017				FGN, NASS	Occurrence of the review of the FRSC Act Existence of stronger enforcement powers in the FRSC Act
16	Improve coordination of land transport in Nigeria	2016	2017	2016	2019	2020	FMOT, SGs	Existence of land transport coordination Reduction of Road traffic density to 30vehicles/km
17	Direct hospitals to maintain and share data on RTCs with relevant agencies			2016			FMoH, SMoH	100% compliance with the directive by hospitals
18	Strengthening coordination and ICT capacity for national M&E coverage and surveillance	2016	2017	2016	2019	2020	FMoH, FMoW, FRSC, FMoT, FERMA, NaRSAC,	Frequency of ICT downtime during M&E activities Ratio of Planned M&E to Actual M&E Activities

Strategic Activities by Road Safety Outputs Cont'd**2. Improved road infrastructure for all road users (Safer Roads and Mobility)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
19	Install Speed (limit) signs on all highways	2016	2017				FMoW, SG, SMoW, LGs	Existence of speed (limit) signs on all highways
20	Establish the Nigeria Road Fund (NRF), to cater for periodic maintenance and safety improvements on Nigerian roads	2016					FGN, NASS	Existence of the Nigeria Road Fund 80% decline in number and/or lengths of bad roads 35% decline in RTCs due to bad roads
21	Promote the design and construction of safer roads - mobility and access	2016	2017	2016	2019	2020	FRSC, SGs, LGs, FMoW	15% increase in road network by 2020
22	Perform regular road maintenance in line with approved work schedule for various road categories	2016	2017	2016	2019	2020	FERMA, State Road Maintenance Agencies	No less than 80% performance based on maintenance plan/schedule 35% decline in RTCs due to bad roads
23	Perform road improvement works on major roads in line with findings from safety audits	2016	2017	2016	2019	2020	FMoW, FERMA, State Road Maintenance Agencies	80% decline in number and/or lengths of bad roads 35% decline in number of crashes along critical corridors

Strategic Activities by Road Safety Outputs Cont'd

2. Improved road infrastructure for all road users (Safer Roads and Mobility)

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
24	Conduct road safety audit and safety impact assessments			2016			FGN, SGs, FRSC	80% coverage of all road in annual assessment programme
25	Implement 10% safety component rule on all road infrastructure projects	2016	2017	2016	2019	2020	FMoW, SGs, LGs	100% compliance with 10% safety component rule
26	Promote mass transit system among the three tiers of Government and develop transport policies that will encourage high occupancy vehicles	2016	2017	2016	2019	2020	FMOT, SGs, LGs	30% increase in number of mass transit schemes and vehicles Reduction of Road traffic density to 30vehicles/km
27	Implement design standards for all road types including the provision of rest-stops, weighbridges, vehicle parking areas at regular intervals on highways.	2016	2017	2016	2019	2020	FMoW, SGs, LGs, FRSC, NSE, SON,	100% compliance of newly constructed roads with defined standards Existence of rest stops on highways in line with prescribed standard. 35% decline in RTCs due to poor road design 35% decline in deaths of vulnerable road users - bus passengers, motorcyclists and pedestrians

Strategic Activities by Road Safety Outputs Cont'd**2. Improved road infrastructure for all road users (Safer Roads and Mobility)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
		2016	2017	2018	2019	2020		
28	Enact a law prohibiting refuse dumping on roads and streets	2016	2017				FGN, SGs, LG, NASS, State Houses of Assembly	Existence of legislation prohibiting refuse dumping 100% compliance with legislation
29	Review designs of road construction projects to ensure suitability with approved town plans prior to award of road construction projects	2016	2017	2016	2019	2020	NITP, FGN, SGs, LGs, SMoPP&UD	100% compliance of newly constructed roads with town plans 35% decline in deaths of vulnerable road users – bus passengers, motorcyclists and pedestrians
30	Ensure removal of markets, motor parks and other obstructions from the highway in line with the right of way rule		2017	2016	2019	2020	FMoW, SG, LG	100% elimination of obstructions on right of way
31	Provide designated parking areas on all roads to prevent obstructions caused by illicit parking		2017	2016	2019	2020	FMoW, SMoW, LGS	60% increase in number of designated parking areas 60% decline in road obstructions due to indiscriminately parked vehicles

Strategic Activities by Road Safety Outputs Cont'd**2. Improved road infrastructure for all road users (Safer Roads and Mobility)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
32	Develop and maintain an online index which provides information on the condition of all roads across the country, agencies responsible and fiscal appropriations made to date	2016	2017	2016	2019	2020	FRSC, SGs	Existence of online index detailing all relevant information
33	Develop and implement National Standards on Road Signs and Markings based on the recommendations of the Geneva Convention		2017				FMoW, FRSC, SG,	Existence of NSRSM 100% compliance with national standards across all States and FCT
34	Enact and enforce a law prohibiting road/street trading	2016	2017				FGN, SGs, NASS, State Houses of Assembly	Existence of legislation prohibiting road/street trading 100% compliance with legislation
35	Enforce legislation on control of billboards and advertisements on State highways	2016	2017	2016	2019	2020	SGs, LGs	80% decline in the number of billboards, posters and other advertisement on Federal/inter-State highways that do not meet legal standard.
36	Enact a law prohibiting social and cultural gatherings/activities on roadways	2016	2017				FGN, SGs, NASS, State Houses of Assembly	Existence of legislation prohibiting social and cultural gatherings/activities on roadways.

Strategic Activities by Road Safety Outputs Cont'd

2. Improved road infrastructure for all road users (Safer Roads and Mobility)

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
37	Prevent and arrest roads and road furniture vandals including those responsible for defacement of road signs, illegal excavation and construction of bumps on the highways	2016	2017	2016	2019	2020	FRSC, NSCDC, NPF, SGs	80% decline in incidents of road and road furniture canalisation
38	Institute pre-commissioning safety impact assessment for all new road projects	2016					FMoW	100% compliance with pre-commissioning safety assessment plan
39	Institute setting up of special grant to assist states in their road safety enhancement effort	2016	2017	2016	2019	2020	FRSC	Existence of yearly grants assessable by states that meet the conditions precedent to draw down 100% compliance with grant terms

Strategic Activities by Road Safety Outputs Cont'd**3. General compliance with vehicle and other road machinery standards (Safer Vehicles)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
40	Enact a law mandating installation of speed limiting devices in all commercial vehicles in Nigeria	2016	2017				FGN, SGs, NASS, State Houses of Assembly	Existence of a legislation mandating installation of speed limiting devices in all commercial vehicles in Nigeria.
41	Ensure that only approved vehicle types are imported into the country	2016					NCS	100% compliance with regulations 100% compliance with Vehicle type testing
42	Review existing standards for Vehicle Type Approval (VTA) covering all vehicle categories (cars, commercial vehicles, motorcycles etc) including airbags, seatbelts, maximum carbon emission, reflectors etc	2016					FMoT, FRSC, SON, NAC, NESREA, NCS	Existence of standards for all vehicle types 50% decline in RTCs due to use of substandard vehicles
43	Provide driver testing centres in major parts of the States		2017	2016	2019	2020	State Governments, FRSC	Existence of standard driver testing centres in all states of the federation 80% reduction in traffic infractions caused by unqualified drivers

Strategic Activities by Road Safety Outputs Cont'd***3. General compliance with vehicle and other road machinery standards (Safer Vehicles)***

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
44	Certify all driving instructors	2016	2017	2016	2019	2020	FRSC	Existence of approved list of certified driving instructors' in every state
45	Provide driving ranges and all categories of vehicles for testing of drivers in the states		2017	2016	2019	2020	State Governments, FRSC	Existence of standard driving ranges in all states 100% compliance with driver testing in states
46	Expand RTSSS coverage to include all commercial vehicles that ply interstate roads		2017				FRSC	90% coverage of commercial vehicles in the RTSSS
47	Implement recommendations from commercial fleet operator assessment		2017				FRSC	70% implementation of RTSSS programme
48	Publicise list of approved commercial vehicle operators		2017				FRSC	Existence of approved commercial vehicle operators' lists 60% Reduction in RTCs involving commercial vehicles

Strategic Activities by Road Safety Outputs Cont'd**3. General compliance with vehicle and other road machinery standards (Safer Vehicles)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
49	Establish and equip standard Vehicle Inspection Centres (VIC) and enforce thorough inspections		2017				FRSC, SGs, private sector	Existence of a minimum of 4 VICs in each State and FCT 35% decline in RTCs due to use of substandard vehicles
50	Encourage Public Private Partnership for establishment of VICs			2016			FG, SG, Private Companies	Ratio of Government to privately owned VICs not more than 2:1 per State
51	Perform technical accreditation of interested private operators of VICs			2016			FRSC	80% coverage of applicants in accreditation exercise
52	Perform thorough annual vehicle inspection prior to issuance of roadworthiness certificates	2016	2017	2016	2019	2020	SMVAA	35% decline in RTCs due to use of defective vehicles 80% decline in road traffic regulation infractions related to defective vehicles and sub standard parts
53	Train Vehicle Inspection Officers (VIOs) for effectiveness	2016	2017	2016	2019	2020	FRSC, SGs	80% of VIOs trained

Strategic Activities by Road Safety Outputs Cont'd**4. A culture of personal responsibility for safe road use (Safer Road Users)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
54	Develop and implement awareness campaigns on proper road use		2017	2016	2019	2020	FMoI, SMOI, LGs, FRSC, NGOs, NOA and the MEDIA	50% decline in number of road traffic law violations 35% decline in number of RTCs
55	Develop and implement behavioural change programmes on proper (safe) road culture	2016	2017	2016	2019	2020	SGs, LGs, FRSC, NOA	Implementation of 80% of number of programmes developed
56	Enlighten road users on response to RTCs as a civic responsibility		2017				SGs, LGs, FRSC, NOA	100% increase in number of road users enlightened on response to RTCs
57	Conduct certification of registered driving schools		2017				FRSC	5% increase in the number of driving schools certified annually Ratio of certified driving schools to total registered

Strategic Activities by Road Safety Outputs Cont'd

4. A culture of personal responsibility for safe road use (Safer Road Users)

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
58	Develop and implement uniform training, testing and licensing programme for all vehicle operators including drivers and motorcycle riders		2017				SGs/SMVA	Implementation 80 % of the training programmes 35% decline in number of RTCs
59	Enforce compliance with seat belt law	2016	2017	2016	2019	2020	FRSC, NPF, STMA	Ratio of unstrapped casualties to total casualties not more than 1:4
60	Enforce compliance with Driving Under Influence (DUI) laws	2016	2017	2016	2019	2020	FRSC, NPF, STMA	50% decline in incidents of DUI
61	Enact a law introducing "passenger culpability" for vehicle overload as part of traffic law violations		2017	2016			FGN, SGs, LGs, NASS, State houses of Assembly	Existence of "passenger culpability" in vehicle overload as part of infringement register 50% Reduction in incidents of overloading
62	Enforce compliance with law prohibiting overloading	2016	2017	2016	2019	2020	FRSC, NPF, STMA	50% decline in cases of overloading
63	Enforce compliance with speed limits	2016	2017	2016	2019	2020	FRSC, NPF, STMA	60% decline in speed related crashes

Strategic Activities by Road Safety Outputs Cont'd**4. A culture of personal responsibility for safe road use (Safer Road Users)**

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
64	Increase capacity of trying officers in conducting trials of suspected road traffic offenders through training	2016	2017	2016	2019	2020	Judiciary	80% of trying officers trained
65	Develop and implement training programmes based on vehicle license category		2017				FRSC, SGs, LGs and NGOs	50% decline in number of road traffic law violations 35% decline in number of RTCs
66	Incorporate/strengthen road safety education including First Aid administration in Primary and Secondary schools' curricula	2016					FGN, SGs, LG, NASS, State Houses of Assembly	Existence of legislation on mandatory road safety education in primary and secondary schools Inclusion of road safety education in primary and secondary schools curricula
67	Establish additional Mobile Courts to hear cases of traffic infractions	2016	2017	2016	2019	2020	Judiciary, FRSC	20% annual increase in number of Mobile Courts Minimum of 60% of traffic infraction cases heard by Mobile Courts
68	Maintain National Traffic Offenders Register	2016	2017	2016	2019	2020	FRSC	Availability of National Traffic Offenders Register

Strategic Activities by Road Safety Outputs Cont'd***5. Prompt and effective emergency response and care (Emergency care and Response)***

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
69	Publicise all toll-free lines to promote awareness	2016	2017	2016			FMoI, SMOIs FRSC, Media	100% increase in number of RTC reported
70	Provide additional medical equipment and emergency rescue ambulances	2016	2017	2016	2019	2020	FRSC, FMoH, FGN, SGs, LGs, Red Cross, NEMA	Average crash response time not exceeding 15 minutes
71	Establish additional road side clinics	2016	2017	2016	2019	2020	FMoH, SMOH	Annual increase of road side clinic number by 10
72	Establish trauma care centres	2016	2017	2016	2019	2020	FMoH, SMOH	Existence of a minimum of 1 trauma care centre in each State and FCT
73	Promote crash scene information management	2016	2017	2016			FRSC, NPF	100% record of cases reported
74	Enforce the law on treatment of all road traffic crash victims before payment of hospital charges or recourse to the Police	2016					NPF, FRSC FMoH, SMOH	Zero case of hospital rejection of RTC victims

Strategic Activities by Road Safety Outputs Cont'd***5. Prompt and effective emergency response and care (Emergency care and Response)***

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
75	Train paramedics and emergency care givers on casualty handling	2016	2017	2016	2019	2020	FMoH, SMoH	80% achievement of training programme 35% decline in post RTC deaths
76	Sensitize road users on the need for timely reporting of RTCs to appropriate agencies	2016	2017				FRSC, State Governments, NOA, NGOs	100% increase in number of RTCs reported
77	Establish bilateral agreements with international stakeholders to achieve intensive emergency response services				2019		FMoH, NGOs, MoFA	Existence of bilateral agreements established Involvement of International partners in emergency response efforts
78	Implement road user insurance scheme to finance rehabilitation of crash victims		2017				NAICOM, NaRSAC	80% achievement of scheme

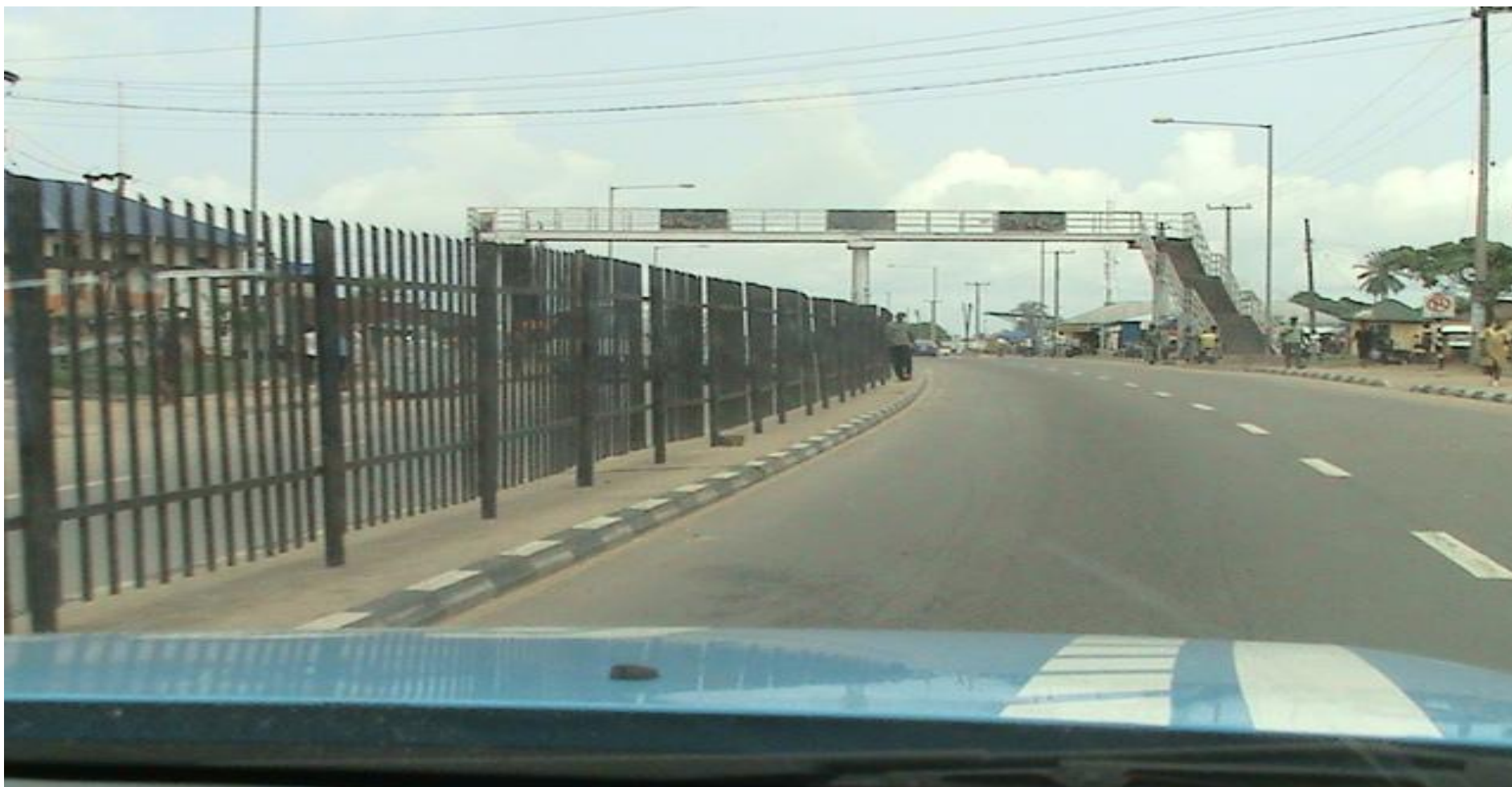
Strategic Activities by Road Safety Outputs Cont'd

5. Prompt and effective emergency response and care (Emergency care and Response)

S/N	Strategic Activities	Timelines in Years					Responsibility	Performance Indicators
79	Direct hospitals to adopt the National RTC reporting format	2016					FMoH, SMOH	100% compliance with the directive by hospitals
80	Promote awareness and encourage participation of the public in the NHIS		2017	2016	2019	2020	National Health Insurance Scheme (NHIS)	20% annual increase in NHIS subscription
81	Establish and equip disaster relief camps for multiple crashes, fire or flood enabled roadside accidents	2016	2017	2016	2019	2020	FMoH	Existence of Disaster Relief Camps around every Critical Corridor

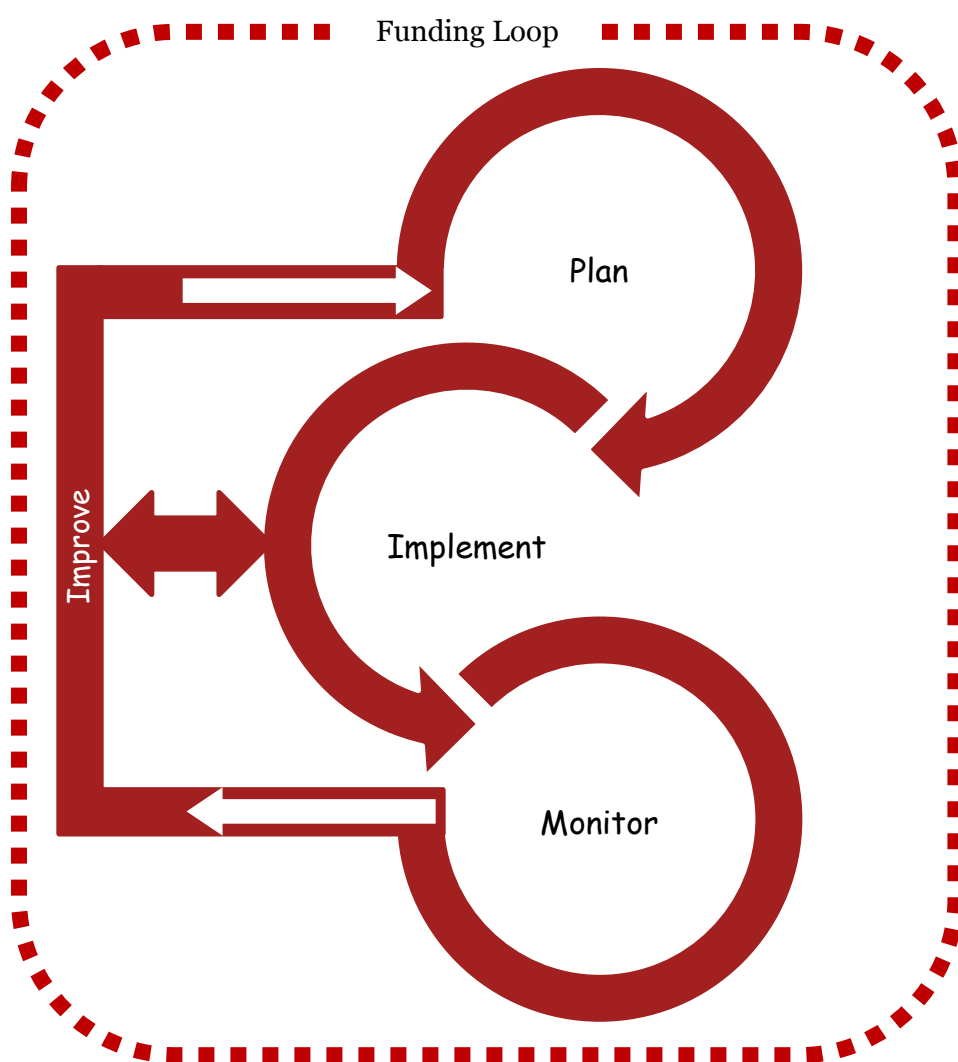
Section 6

Sustaining Road Safety Management in Nigeria



Implementation Approach

To ensure successful and wholesale implementation of the NRSS, the following approach will be adopted and driven by the NaRSAC Secretariat on road safety matters.



The approach for implementation comprise 5 steps as follows:

- 1. Planning:**
Following the adoption of the NRSS, Federal and State MDAs will update their Operational Plans (with assigned responsibilities specified in the NRSS) and Budget Envelopes (with additional cost of executing the assigned strategic activities).
- 2. Funding:**
Responsible MDAs will seek / source funding for their strategic activities with support from the National Road Safety Advisory Council (NaRSAC) and coordination by the designated NaRSAC Secretariat
- 3. Implementation:**
Responsible MDAs will execute assigned strategic activities with guidance provided by the NaRSAC Secretariat and support from stakeholders, as may be required.
Responsibility for executing the strategic activities rests with the responsible MDAs
- 4. Monitoring:**
There will be periodic reviews of the progress of execution of the NRSS. This will be performed by existing monitoring and evaluation teams, pooled by the NaRSAC Secretariat, reviewed by the Technical Working Group (TWG) and approved by the NaRSAC.
Monitoring and Evaluation will be based on progress along the Performance Indicators defined for the strategic activities
- 5. Continuous Improvement:**
Suggestions for improvement or updates to the NRSS may be initiated at any time during the execution and monitoring steps by any MDA via a formal request sent to the NaRSAC Secretariat. This request will be reviewed by TWG and recommended for adoption (or otherwise) to the NaRSAC. Only after ratification by the NaRSAC will the recommended improvement be adopted (in accordance with statutory requirements).

Institutional Arrangement

In view of the required management capitals, an inter-ministerial body vested with the power to steer the process of achieving the NRSS goal to be referred to as the National Road Safety Advisory Council (NaRSAC) is proposed. The Council will oversee the implementation of the NRSS with particular emphasis on:

- Harmonizing activities performed by different institutions.
- Consolidating and streamlining all regulations that have impact on safety of roads.

The Council will be assisted by a Secretariat which will be responsible for coordinating the activities of the NaRSAC and its Technical Working Group.

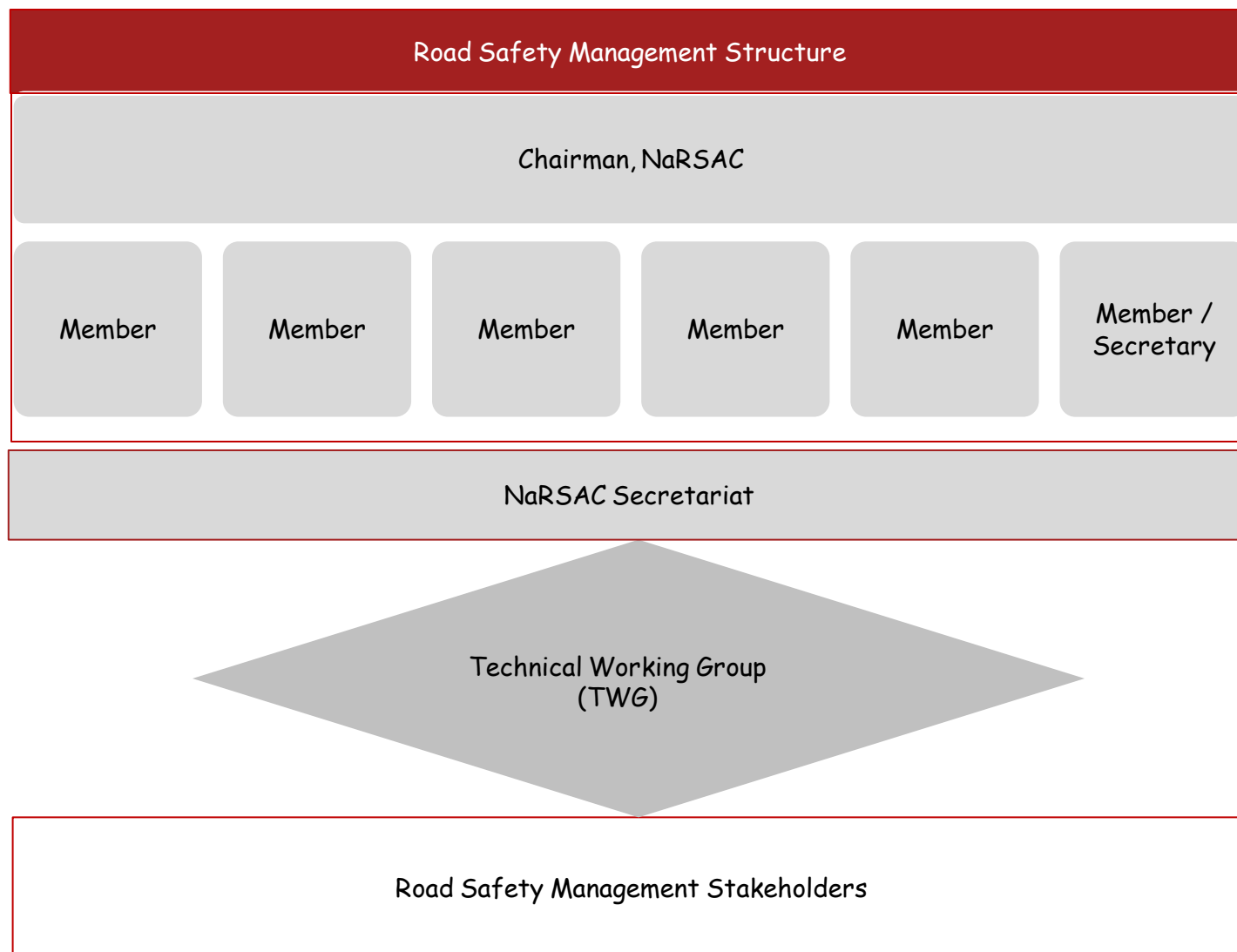


Figure 13 - Road Safety Management Institutional structure

Institutional Arrangement - The Secretariat

Role of the Secretariat

The UN Decade of Action report stresses the importance of an accountable institutional leadership borne out of a legal authority that confers on it, the power to make decisions, manage resources and coordinate the efforts of all participating sector of government and other stakeholder groups in road safety management.

Bearing this in mind therefore, a fully functioning secretariat (with focus road safety matters) plays a key role in setting and agreeing targets across the road safety partnership as well in coordinating result-focused activity among governments, the civil society and the business sector. In addition, it ensures that legislations fit designated road safety tasks, secures sustainable funding and allocation of resources for its designated responsibility and those of other groups. Furthermore, it provides high-level championing and promotion of shared responsibilities with respect to goals and targets while undertaking monitoring/evaluation of results as well as managing the process of research and knowledge transfer.

To be effective, the Secretariat must play a dominant role across the key institutional management functions which form the bedrock on which road safety initiatives are built.

Some of these management functions include legislative proposals; monitoring and evaluation; multi-sector coordination; independent assessment of the planning, design, operation and use of the road network, recovery and rehabilitation of crash victims; and research/development and knowledge transfer.

Key responsibilities of the Secretariat

1. Provide the secretariat for NaRSAC
2. Institute process for the amendment / update of the NRSS
3. Follow up with relevant authority for the approval of NRSS updates and budgets
4. Execute approved NRSS amendment or update
5. Provide support to states and relevant MDAs (as required) for the effective performance of their assigned activities
6. Conduct monitoring and evaluation (at the instance of the NaRSAC) of the performance of States and relevant MDAs along the NRSS performance indicators
7. Prepare the consolidated budget of the TWG
8. Co-ordinate proposals for specific interventions and submit to NaRSAC for approval and possible funding
9. Develop and enforce national standards on all road safety activities
10. Collate benchmark and communicate road safety data and trends

Key Success Factors and Enablers

The success of the articulated strategies is dependent on the existence of a machinery that will enable and sustain the coordinated execution of these strategies.

An effective machinery is one that takes a holistic view of road safety management and embodies the following key capitals:

- **Financial Capital:** A key requirement for achievement of the goal of reducing fatalities by 35% and ensuring sustainability of effective road safety management is adequate funding as recommended by the UN Decade of Action's "Safe systems". In view of this, a funding structure will be developed and distinct funding sources determined in order to avoid putting additional pressure on available financial resources that have been committed for road safety management.
- **Political Capital:** It is important that political leaders are sufficiently engaged to secure their support and commitment required for the implementation of the strategic initiatives of the NRSS and beyond. A positive "tone at the top" will promote widespread buy-in and enable proper oversight of the institutions responsible for performing the specific strategic actions.
- **Social Capital:** All citizens need to have a sense of personal involvement and demonstrate individual and collective responsibility for the attainment of the desired road safety future.
- **Technical Capital:** This comprises the knowledge encapsulated in the adopted road safety management approach, data collection and information management systems, infrastructure network systems and adequate power supply.

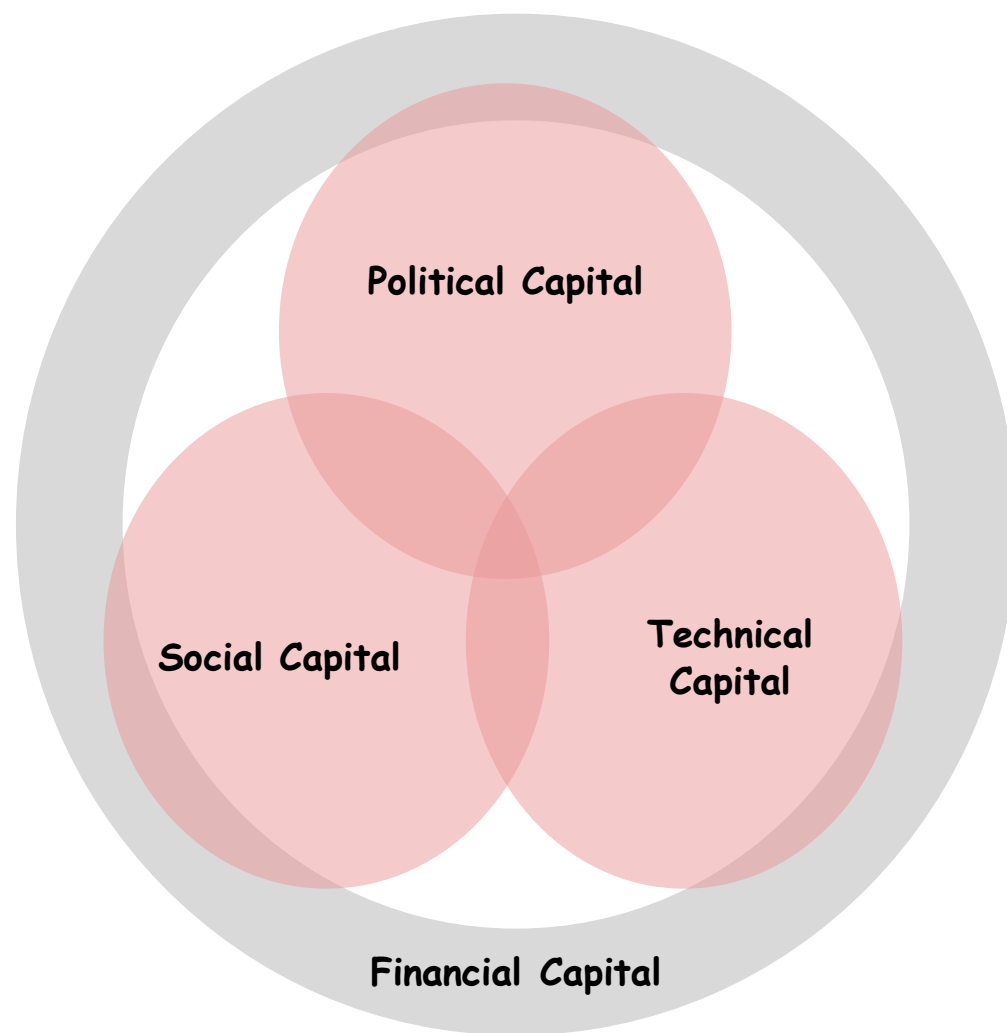


Figure 12- Key factors affecting Road Safety Management

Section 7

Monitoring and Evaluation of the NRSS



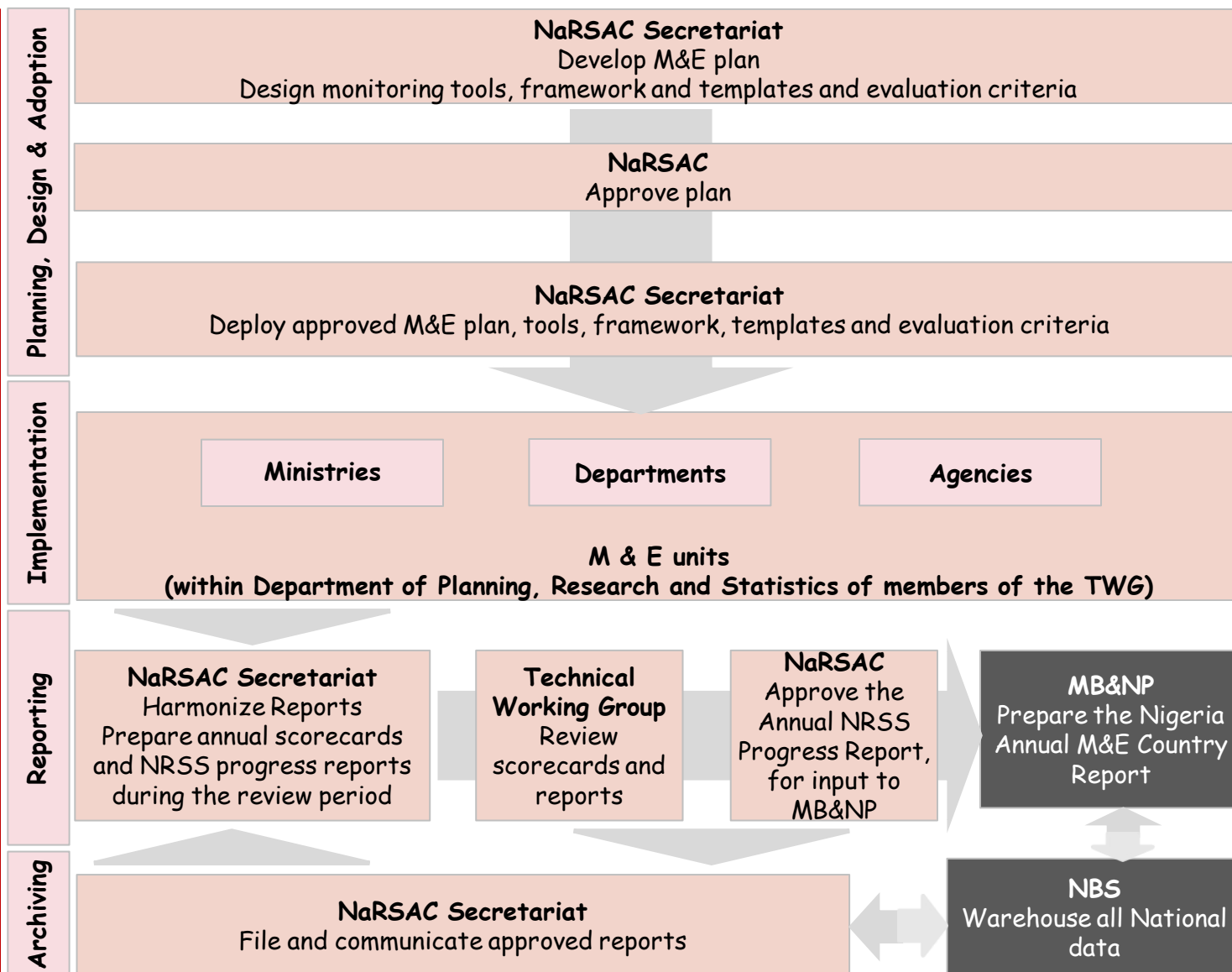
The Framework

The NRSS (2016-2020) M&E Framework is adapted from the National M&E Framework for the Nigerian Vision 20:2020.

The M&E framework is designed to enable independent fact-based assessment of achievement of the road safety goal of reducing road traffic crash fatality rate by 35% by 2020.

To facilitate the assessment of progress made targets have been determined and agreed over the five (5) year period.

M&E activities will be; driven by the NaRSAC Secretariat (as approved by NaRSAC); performed by M&E units situated in the Departments of Planning Research and Statistics (DPRS) of the various implementing institutions some of which make up the TWG; validated by the MB&NP and NBS.



Delivery Approach

Status of achievement of strategic objectives, targets and outcomes will be evaluated along the performance indicators (PIs) identified for each of the strategic activities which are assigned to specific agencies within government and will be disseminated to all stakeholders on an annual basis.

These PIs have been designed to adapt to the principles of ***Specificity, Measurability, Achievability, Reliability and Time-Bound (SMART)***; as well as other globally accepted standards. However, work will continue on the development of additional suitable PIs and associated data collation arrangements prior to the maiden strategy review in 2017.

Regular monitoring and evaluation of performance will be undertaken by the unit / department specified for this purpose by the relevant MDA/ implementing agency, which may be warehoused in the Department of Planning, Research and Statistics. For each year within the strategy period, individual MDAs shall establish a programme for M&E activities to be performed at intervals not exceeding 3 months at any time.

Scorecards indicating performance of each MDA along the established PIs for each strategic activity shall be prepared and submitted to the office of the Chief Executive of the MDA, for reporting to the NaRSAC secretariat as may be requested or quarterly at the minimum. These scorecards will be harmonised by the NaRSAC Secretariat into "progress reports and Scorecards".

In addition, the NaRSAC Secretariat shall prepare annual NRSS country reports reflecting progress made against the PIs for the period under review and submit same to the MB&NP as the report on road safety sector strategy.

Data support for performance against the PIs shall be sourced from the FRSC, National Bureau of Statistics (NBS) and other relevant agencies maintaining data on Road Traffic Administration. Where there are conflicting data, the data sourced from FRSC as the Secretariat for NaRSAC shall suffice.

Independent Review

The MB&NP may conduct independent assessments of performance of each implementing agency / MDA viz a viz the (annual) scorecards submitted. These assessments will entail a review of the target outputs along the five (5) safe systems' outputs.

The review will be necessitated where conflicting reports are received or the NaRSAC fails to accept received scorecards

High Level Plan

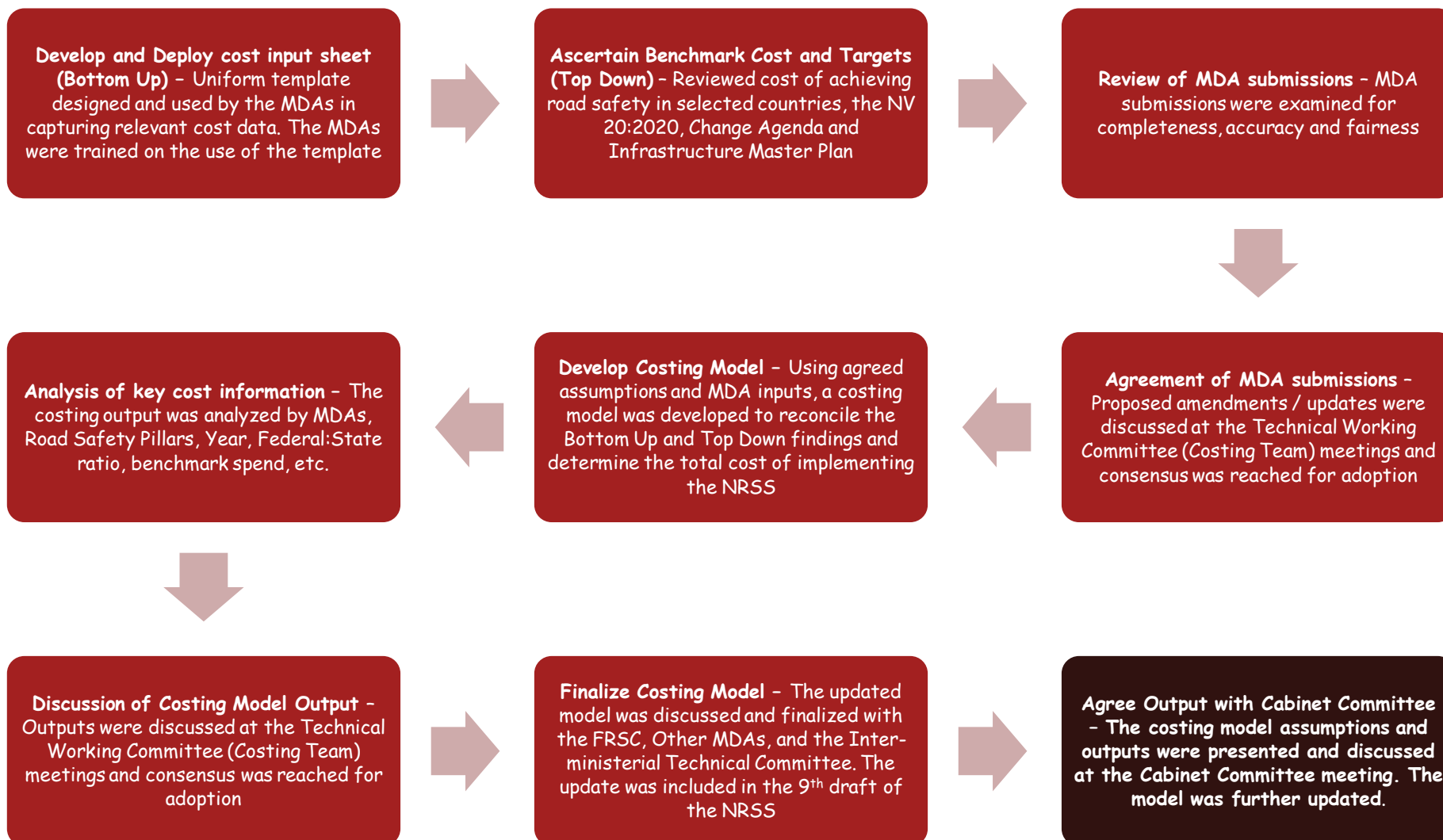
SN	Task	Frequency	Due Date	Responsibility	Deliverable	Recipient(s)
1.	Measure individual MDAs performance along the Performance Indicators (PIs) specified for each strategic activity	Quarterly	3rd Wednesday of the Month following End of Quarter	M & E units within relevant MDAs	Quarterly Scorecards	NaRSAC (secretariat)
2	Collate quarterly scorecards	Quarterly	Last Friday of the Month following End of Quarter	NaRSAC Secretariat	Progress Reports	NaRSAC / TWG
3.	Perform independent assessment of each implementing agency / MDA viz a viz scorecards submitted, if required.	Ad hoc	2 nd Friday following the decision taken	MB&NP	Independent Assessment Report	NaRSAC / FEC
4.	Review Scorecards and Independent Assessment Reports	Quarterly Review of the independent assessment report to coincide with the next quarter's scorecard	Last Friday of the quarter	TWG	NRSS progress report	NaRSAC
5	Prepare the NRSS country report	Annually	2nd Friday in April of the year following the period under review.	NaRSAC (secretariat)	Annual NRSS country report	NaRSAC / FEC

Section 8

NRSS Implementation Cost



Cost Development Process



The NRSS costing model reflects an increased focus towards road safety management and emphasizes activities that will assist in bridging existing infrastructure deficit

The incidence of RTCs and associated deaths in 2012 estimated at over 4,000 is at odds with one of the key Pillars of the Nigeria Vision 20:2020 - "Guaranteeing the productivity and well-being of the Nigerian people" - and is instrumental to an economic loss of >3% of GDP (forecast economic loss of over 2.45 trillion naira in 2020 alone).

To curb the rising menace of RTCs with their resultant deaths and achieve the goal of reducing fatalities by 35% in 2020, significant investment is required to improve existing road infrastructure for mobility and safety.

A look at Government budgeted expenditure on road safety-related activities and comparative results achieved at the Federal, State and Local levels for 2010 to 2013 revealed that the estimated economic losses as a result of RTCs outweigh the estimated spend in those years.

A look at other countries with better road safety indices, further emphasized the need for increased and focused spend on road safety matters. For example, the United Kingdom with 2,278 road traffic deaths in 2010 (a target we aspire to by 2020), has a land area one-quarter the size of Nigeria, a total road network twice that of Nigeria and still spends approximately US\$9Billion (~~~N~~1 trillion) per annum on roads/infrastructure.

A comparison of the NRSS target outcome in 2020 to outcomes achieved by selected countries with similar outputs shows that in order to achieve the goal of 35% reduction in deaths due to RTCs, the increased spend will need to be incurred on the activities defined in the NRSS,

Assumptions:

The NRSS is a national plan - cost of implementing the plan will be borne by all levels of government Federal, State and Local.

Road construction is not considered a core road safety activity. The effort to ensure that new roads constructed are safe is considered a core road safety activity.

The cost of constructing new roads and carrying out major rehabilitation of existing roads have been excluded from the costing plan.

Other assumptions were derived based on information availed by source MDAs, 11 of these assumptions considered key are set out on the next page.

Source: FRSC, Mid Term Report on Change Agenda, PwC Analysis

Key Costing Assumptions

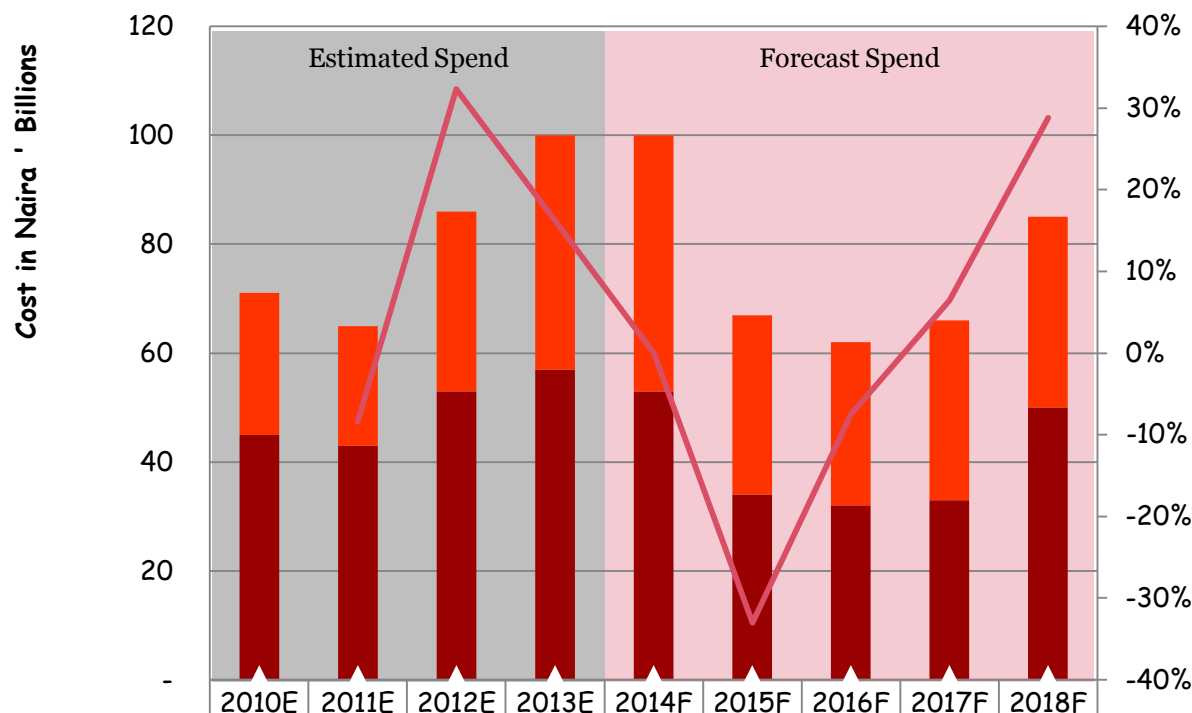
S/N	Narrative	2016	2017	2016	2017	2020	Source
1	Population (millions)	177.8	183.2	188.7	194.4	200	National Population Commission, PwC Analysis
2	Population Growth Rate (%)	3.2	3.2	3.2	3.2	3.2	National Population Commission
3	Inflation rates	9.5%	9.8%	9.9%	10.2%	10.4%	National Bureau of Statistics, PwC Analysis
4	Exchange rate (Naira / US\$1)	157	154	154.06	154.12	154.18	Ministry of Budget & National Planning (Mid Term Report on TA), PwC Analysis
5	GDP (NGN' trillion)	48.5	53.4	58.7	64.5	71.0	National Bureau of Statistics, PwC Analysis
6	GDP growth rate	10%	10%	10%	10%	10%	National Bureau of Statistics, PwC Analysis
7	Cost of road construction per km (US\$' million) - Federal and State roads	1.5	1.5	1.5	1.5	1.5	Ministry of Budget & National Planning (NIIMP)
8	Cost of road construction per km (US\$' 000) - Local Government roads	750	750	750	750	750	Ministry of Budget & National Planning (NIIMP) & PwC Analysis
9	Target Road Metric for 2020 i.e. Km road per 100 sq. km of land area	22.6	23.2	23.7	24.3	25	Ministry of Budget & National Planning (NIIMP), PwC Analysis
10	Planned increase in road network (%)	3.30	2.85*	2.60*	3.00	3.26	PwC Analysis (to result in Road Metric for 2020)
11	Percentage of road construction costs considered for road safety (road furniture / safety components)	10%	10%	10%	10%	10%	World Bank/UN (Decade of Action)
* It is envisaged that the level of output for the period leading up to and shortly after the elections may be impacted							

Costing Summary - Spend and Growth Rate

Total cost of implementing the road safety strategy for the 5 year period (2016 to 2020) is estimated at ~~~N~~**382Billion (N381,974,018,199)**. This is approximately 10% of the total cost of road infrastructure over the same period as contained in the NIIMP (~\$25Billion)

Notes

Total NRSS Costing Summary - Spend and Growth Rate



The high forecast spend in 2016 is as a result of the aggressive nature of implementation expected in year 1, whereas the impact of elections accounts for the drop in 2017 and 2016.

Federal Government Budget on Road Safety (Prior Years) = Sum total of estimated budgeted spend on road safety related activities and 10% of road infrastructure spend from MoW, SURE-P, Niger Delta Ministry and the Niger Delta Development Commission (NDDC)

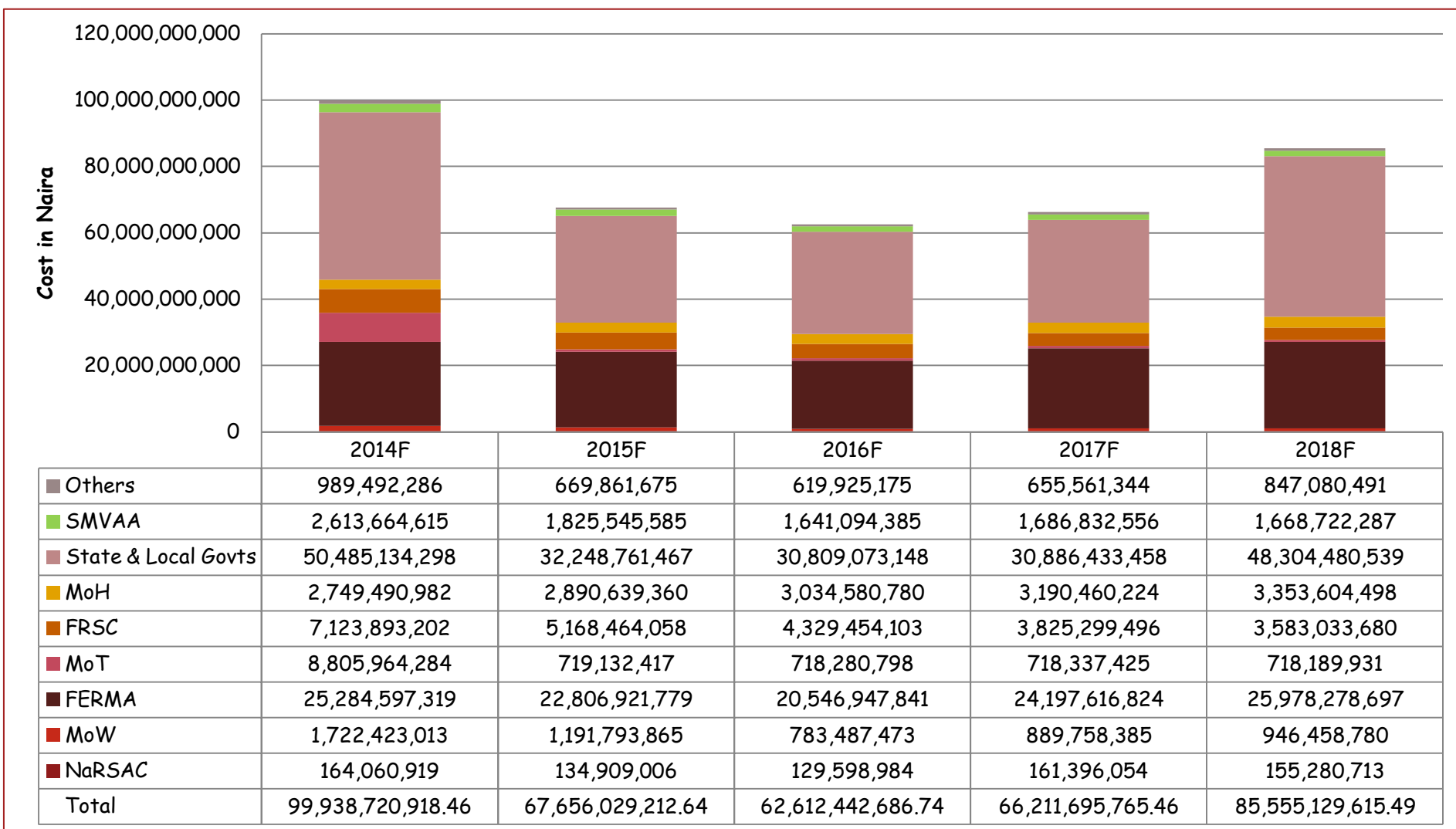
Average Budget Implementation Rate of 70% was applied to the sum of available relevant budgetary allocations (based on the observed 60 and 80% budget success from available results)

State Government Spend on Road Safety = 10% (World Bank/UN recommendation) of the total road infrastructure budgetary allocation for all States estimated at 21% of the States' capital expenditure.

Source: Federal and State Budgets (2010 -2013), PwC Analysis (Based on NRSS Costing 2016 - 2020)

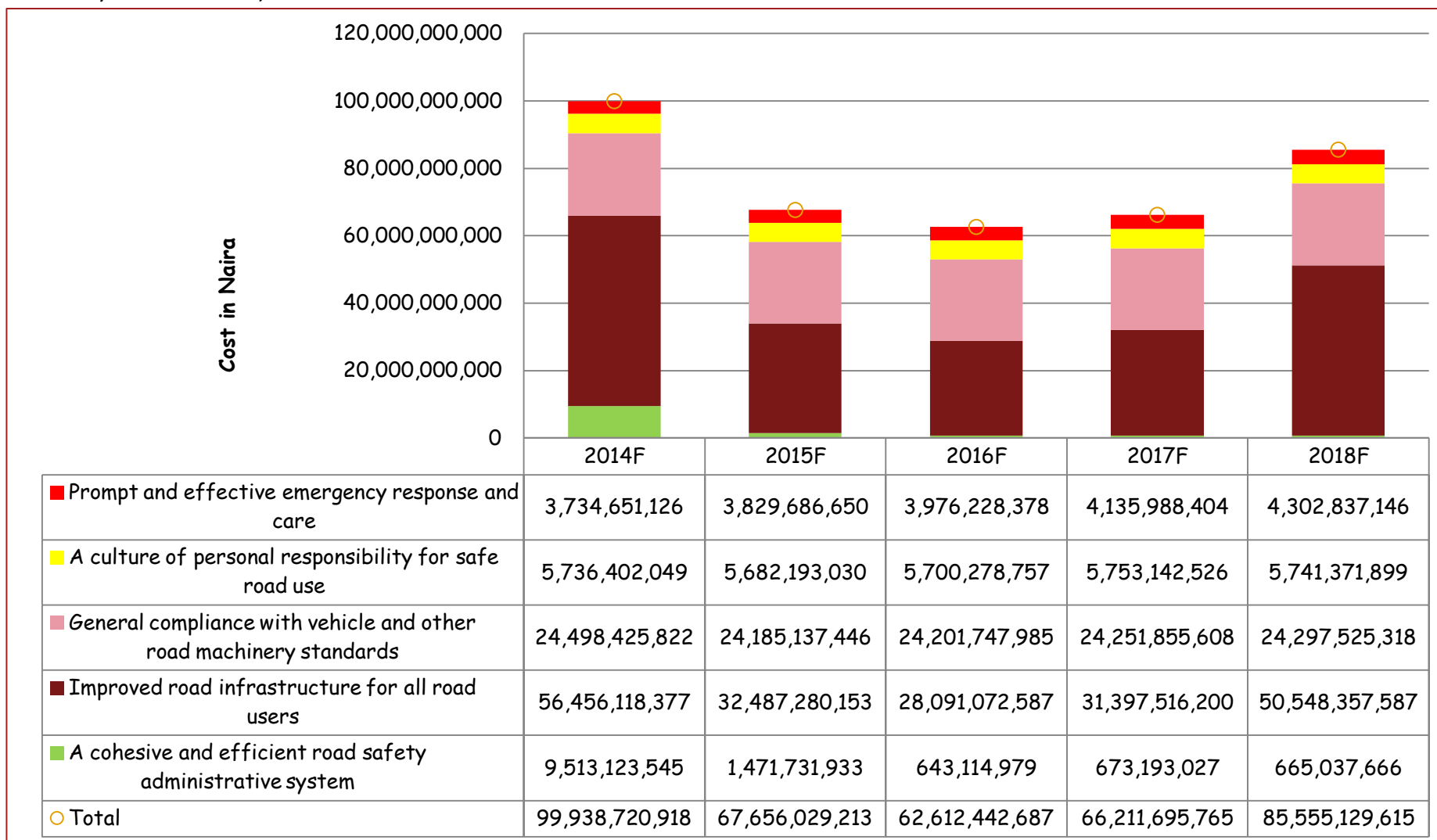
Costing Summary by MDAs

The success of the NRSS will depend on the support of all stakeholders and the ability of the State and Local Governments, FERMA and MoW to deliver their road safety activities collaboratively

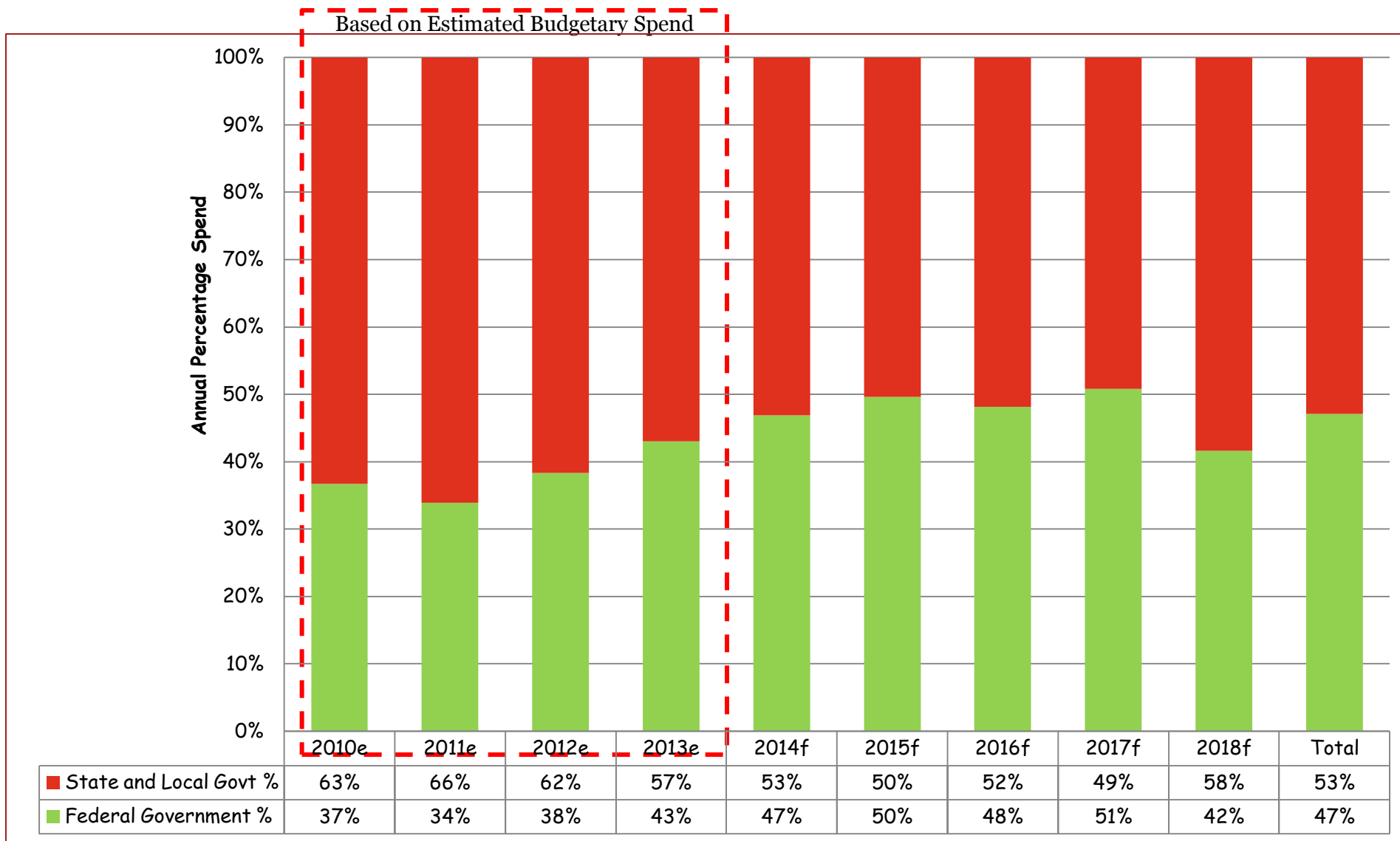


Costing Summary by Safety Pillars / Outputs / Objectives

Of the 5 safety pillars, improved road infrastructure for safety and mobility and general compliance with vehicle and other road machinery standards require the most amount of financial resources



Costing Summary by Federal and State Governments



Source: Federal and State Budgets (2010 -2013), PwC Analysis (Based on NRSS Costing 2016 - 2020)

Costing summary - Spend vs. Expected Output

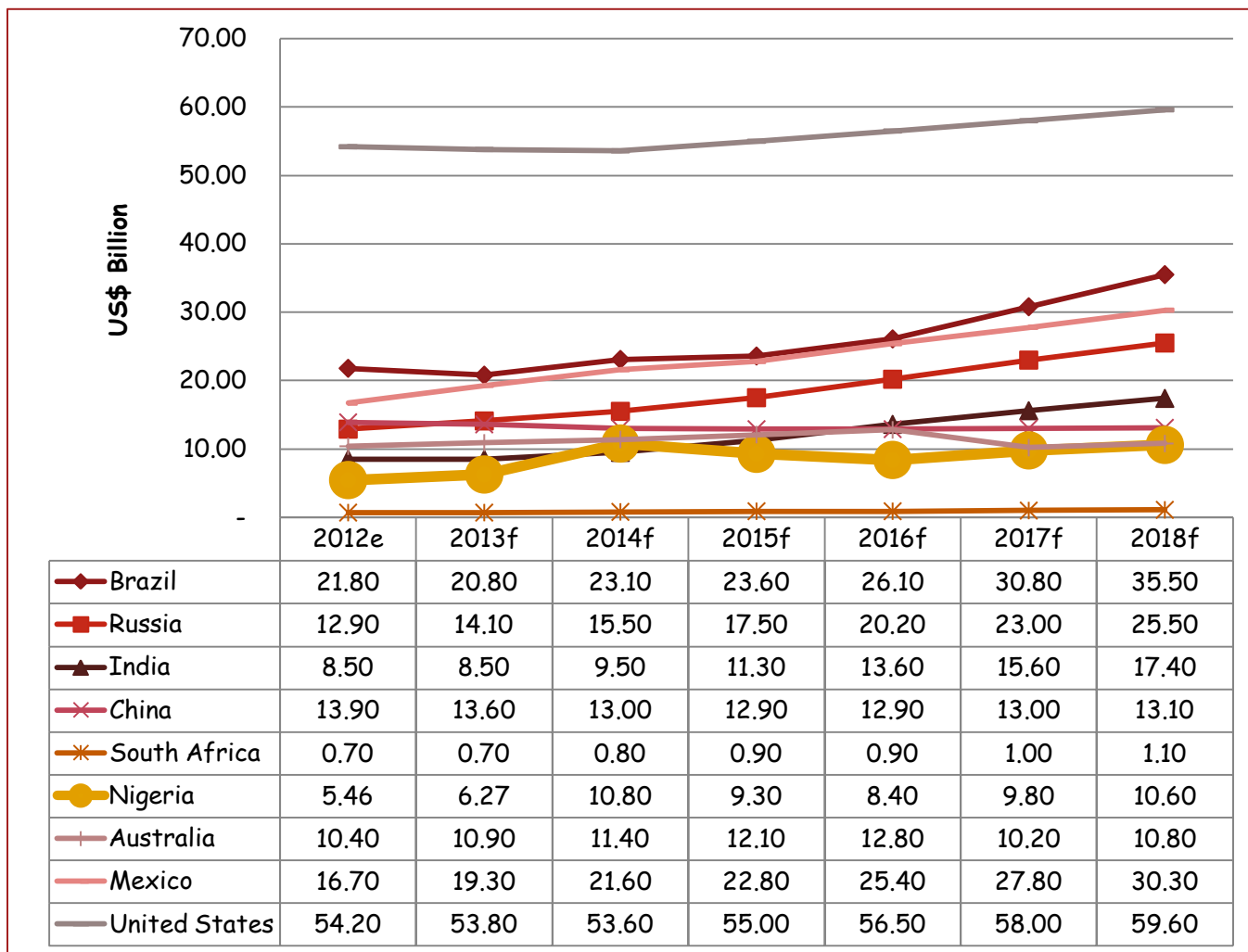
Achieving the target will require considerable increase in road safety spend in comparison to the current budgetary allocations / spend

	Actual	Forecast			Note		
	2012A	2016F	2017F	2016F		2017F	2020F
NRSS Spend							
Federal Government Spend (N'000)	32,997,789	46,839,922	33,581,722	30,162,275	33,638,429	35,581,926	Over 40% increase from 2012 expenditure.
State Government Spend (N'000)	53,043,869	53,098,799	34,074,307	32,450,168	32,573,266	49,973,203	Approximately 0% increase from 2012 expenditure.
Total Spend (N'000)	86,041,659	99,938,721	67,656,029	62,612,443	66,211,696	85,555,130	
YoY % growth	NA	0%	(32%)	(7%)	6%	29%	2017 and 2016 dip are based on expectation of slowdown of activities in election period

	Actual	Planned			Note		
	2012A	2016F	2017F	2016F		2017F	2020F
Planned Output							
Road network in Km	200,183	206,579	212,194	217,209	223,424	230,240	Cumulative growth of 15% by 2020
Km road per 100 sq. km of land area	21.7	22	23	24	24	25	Cumulative growth of 15% over the strategy period
Population to Km Road Ratio	837.65	861.1	864	869	870	870	Reduced annual increase
Vehicle to Km Road Ratio*	39	44	46	49	51	53	Reduced annual increase

* Vehicle growth rate based on CAGR (2008 - 2012) computation.

Costing Analysis - Comparison of Infrastructure Spend US\$ Billions- "BRICS" and other Countries



Commentary

Nigeria's kilometre of road per 100 square km of land area currently stands at 21.7km (less than half of the BRICS average of 44km).

This is an indication of the huge road infrastructure deficit that exists in Nigeria currently.

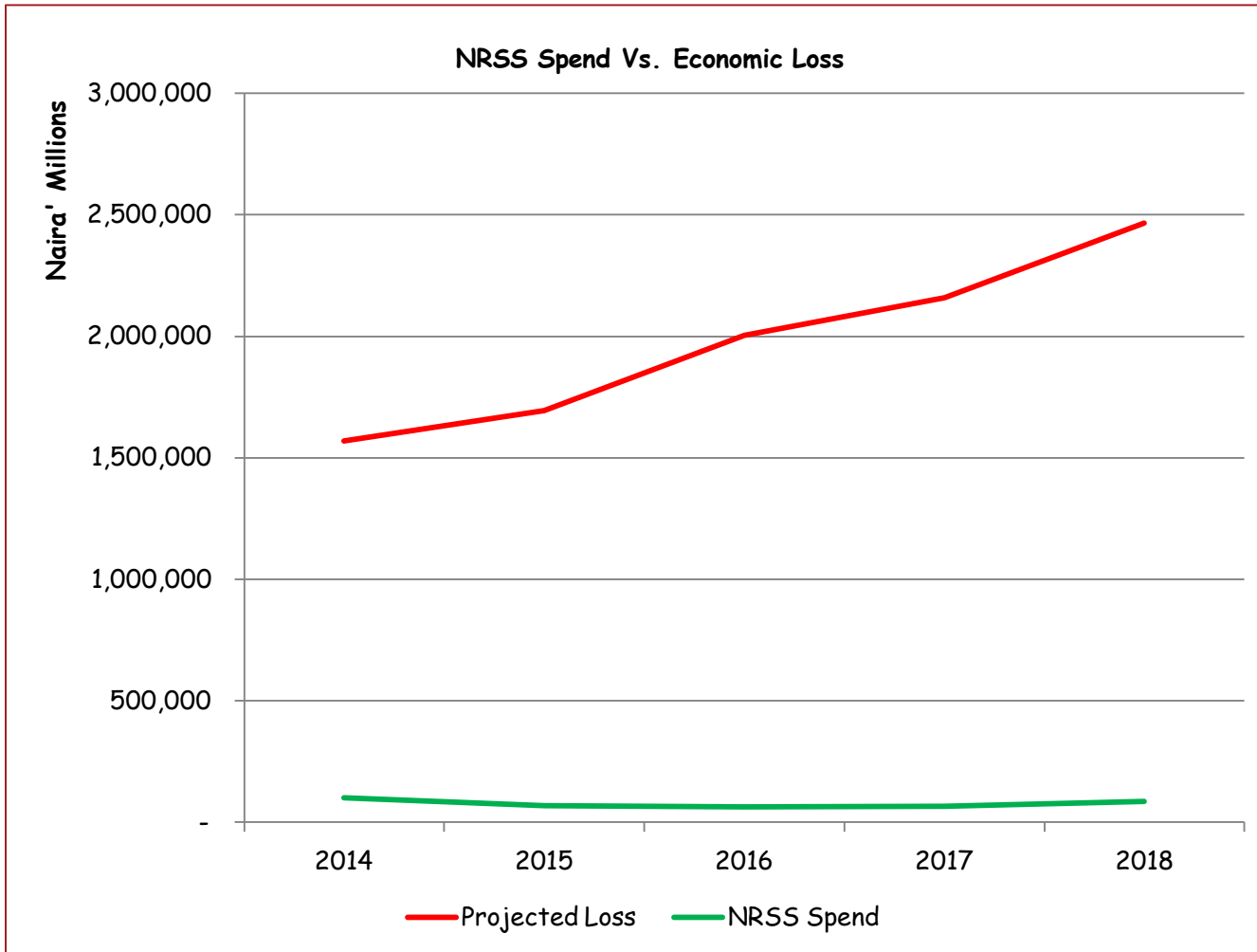
This deficit requires significant and deliberate investment to be reduced.

Despite this alarming gap, only South Africa among the "BRICS" countries will spend less than Nigeria over the plan period on road infrastructure development

However, Nigeria's spend would result in the achievement of 25km road network per 100 square km of land area by the end of 2020 (~ 15% increase in road network between current year and 2020).

Source: PwC Analysis (Based on NRSS Costing and BMI Data)

Costing Analysis - Comparison of NRSS Spend to Estimated Loss due to RTCs



Commentary

It is observed that the estimated cost of implementing the NRSS (less road construction) will be significantly lower than the anticipated loss (in the event that no action is taken) during the strategy period.

It is therefore imperative that for the country to avert this massive loss attributable to in action, special attention must be given to fully implementing the strategies itemised in the NRSS

A major component to reducing the projected loss is construction of roads which has been duly captured in Nigeria Infrastructure Master Plan - with a target of 31kms per 100 square km of land area by 2043 .

Source: PwC Analysis (Based on NRSS Costing and BMI Data)

Costing Analysis - Linking Planned Outputs to Expected Outcomes

The expected outcomes were derived by using benchmark country outcomes (using WHO data for outcomes) using planned output levels

Planned Output	Actual	Planned					Note
	2012A	2016F	2017F	2016F	2017F	2020F	
Road Network in km	200,183	206,579	212,194	217,209	223,424	230,240	Cumulative growth of 15% by 2020
Km road per 100 km ² of land area	21.7	22	23	24	24	25	Cumulative growth of 15% over the strategy period
Population to Road Ratio	837.65	861.1	864	869	870	870	Reduced annual increase
Vehicle to Road Ratio	39	44	46	49	51	53	

Expected Outcomes (FRSC)	Actual	Expected					Note
	2012A	2016F	2017F	2016F	2017F	2020F	
Reported No. of RTCs	6,269	5,830	5,391	4,953	4,514	4,075	35% reduction in RTC
RTCs per 10,000 vehicles	8	7.4	6.9	6.3	5.8	5.2	
RTC Deaths per 100,000 persons	2.5	2.3	2.2	2.0	1.8	1.6	
Reported No. of Deaths	4,260	3,962	3,664	3,365	3,067	2,769	35% reduction in RTC deaths

Expected Outcomes (WHO)	Estimated	Expected					Note
	2010E	2016F	2017F	2016F	2017F	2020F	
RTC Deaths per 100,000 persons	33.7	27.5	24.6	21.9	19.3	16.9	RTC deaths are reducing faster than the population is increasing
Reported No. of Deaths	53,339	49,605	45,872	42,138	38,404	34,670	35% reduction in RTC deaths

FRSC's recorded data provides the premise for the establishment of a fatality rate of 1.6 death per 100,000 persons in 2020 (based on 2012 data). FRSC data is markedly different from the WHO estimates presented in the table above and provides the data used to rank Nigeria on the next page. It is noted that, most countries within the FRSC target fatality rate (1 to 5) rank among the top 15 countries and possess road ratios such as population - road ratio and Vehicle per 100,000 km of road that are significantly lower than that of Nigeria.

Costing Analysis - Country Ranking based on Outcomes (using WHO data for Nigeria)

The expected outcome of 35% reduction in RTCs using planned output levels over the plan period (using WHO data for outcomes), will change Nigeria's ranking from 176th (in 2010) to top 100 by 2020; above the BRICS countries whose road safety indices are assumed to be improving at current rates.

	Country	Year	Population	Outputs			* Outcomes			
				Road network (km)	Km road per 100 km ² of land area	Population to Road Ratio	Vehicle to Road Ratio*	Estimated Number of Deaths	RTC Deaths per 100,000 persons	Ranking RTC Deaths
Benchmark Output and Outcomes	United Kingdom	2020	65,105,246	451,913.54	186.80	144.07	78.60	2,278	3.7	7 th
	Japan	2020	126,168,156	367,229.42	100.75	3443.57	206.90	6,625	5.2	19 th
	Australia	2020	23,470,145	860,608.45	11.20	27.27	20.67	1,363	6	23 rd
	United States	2020	327,884,000	6,690,319.16	73.14	49.01	39.12	35,490	11.4	55 th
	Bangladesh	2020	177,330,990	22,072.05	16.96	8,034.19	45.90	17,289	11.6	57 th
	Mexico	2020	122,311,746	410,259.99	21.10	298.13	115.91	16,714	14.7	84 th
	Nigeria	2020	204,900,000	230,240	25	870	53	34,670	16.9	101st
	Pakistan	2020	207,862,518	271,519.58	35.22	765.55	25.02	30,131	17.4	105 th
	Russia	2020	142,122,776	1,224,659.05	7.48	116.05	53.37	26,567	18.6	114 th
	India	2020	1,296,834,042	5,637,313.06	189.60	230.04	9.07	231,027	18.9	119 th
	China	2020	1,376,745,757	5,353,082.38	57.39	257.19	69.24	275,983	20.5	132 nd
	Brazil	2020	218,622,311	1,780,858	21.05	122.76	37.98	36,499	22.5	147 th
South Africa	2020	48,440,134	1,044,960.67	86.14	46.36	10.01	15,995	31.9	175 th	

* Ranking of outcomes in comparison to other countries of the World as at 2010

Section 9

Forging Ahead



Adoption of the NRSS

Having brought to light the enormity of the road safety challenges in Nigeria and recommended strategies, it is envisaged that the NRSS will become actionable upon conclusion of the following key steps:



* Details of possible sources of funds based on experience of selected countries available on next page

Possible sources of funding

To ensure sustainability of the NRSS, a stable source of funding is required for all the strategic initiatives. As such, the NRSS considers the investment of a specified percentage of estimated annual losses (to GDP) resulting from road traffic crashes as major source of funds. Other secondary sources to be considered include a percentage of road funds, support from Multilateral Development and donor agencies.

Sources and attributes of funds considered as "Best Practice" have been identified from select countries and presented in table below.

Potential Sources	Attributes	Countries where this is being practiced
Government General Revenues (From taxes etc..)	<ul style="list-style-type: none"> Simple to administer, but difficult to disaggregate safety spend which are combined with other budget figures Government persuasion (via Loss benchmarking) required for Early stage countries 	Countries with well developed safety programme e.g. UK , Sweden , Netherlands + EU and many OECD countries
Hypothecated (earmarked) Income without recourse to treasury (Potential government revenues assigned directly to road safety (e.g. traffic fines)	<ul style="list-style-type: none"> Defaulters pay more "Awakens" road safety compliance authorities who are recipients and who are permitted to appropriate same for operational/resource improvement. Often resisted by treasury except for new offence categories or if they constitute revenue neutrality and have no impact 	Used in many countries to varying degrees: <ul style="list-style-type: none"> Serbia and Vietnam assign 100% of fines to road safety; UK 100% of speed and red light cameras fines; and West Australia 35% and Sweden 35% of parking fines. Most apply income from personalized registration plate sales
Insurance Levies (Small levy on compulsory 3rd party insurance to fund road safety)	<ul style="list-style-type: none"> Guaranteed income Considered by Insurance companies as efforts in "loss reduction" Easily accepted especially by Government owned insurance companies 	<ul style="list-style-type: none"> In use in many countries with premiums ranging from 1% -10% Victoria, Fiji, Zambia and several others use 10%.

Source: Alan Ross (2011)

Possible sources of funding cont'd

Potential sources	Attributes	Countries where this is being practiced
Policy on safety budget based on annual losses (fixed % of estimated annual losses to GDP)	<ul style="list-style-type: none"> • Very simple to apply • Advocates for expenditure on safety as an investment to reduce losses 	<p>In Japan, a policy decision was reached to spend half of its annual losses, for instance 0.6% of GDP was earmarked to fund safety programs when annual losses were estimated at 1.2% GDP.</p> <p>Success recorded = Reduced deaths and injuries by 50% (similar to the NRSS goal for the period 2016 to 2020)</p>
Road Funds (Road user charges from fuel, excise duties, vehicle licenses etc.)	<ul style="list-style-type: none"> • Potential source of significant funding • Reliable and allows for planning • Few demerits 	<p>Used in many countries to fund road safety: New Zealand is the only country to fund entire safety budget from 15% share of road fund .</p> <p>Others typically adopt 3-10% of fund for safety, or the road fund board makes discretionary payments annually to fund safety activities.</p>
Multilateral Development Banks(MDBs) and Bilateral Donors (Loans and grants from development banks and aid agencies)	<ul style="list-style-type: none"> • Evidence of recent commitment of MDBs to additional funding for road safety • Several foreign donors thereby guaranteeing steady streams of funding 	<p>Many countries around the world e.g. Vietnam implementing a \$32 million world bank funded road safety project.</p> <p>ADB funding regional projects in 10 countries.</p>
General Sponsorship (Private companies providing funding for specific activities of interest to them)	<ul style="list-style-type: none"> • Usually small individual amounts • Can be used to supplement main funding • May target areas not covered by other funding • If government agency, there can be difficulties in accepting funding from private companies 	<p>Insurance and other private Companies often willing to fund campaigns or enforcement on particular topics of interest to them as part of their loss reduction activities</p>

Source: Alan Ross (2011)

Safety starts with you.

Section 10

Appendices

Appendix 1

Glossary

Glossary of Terms, Acronyms and Abbreviations

Term

Motor Vehicle

Definition

For the purpose of this document, motor vehicle refers to all self-propelled, wheeled conveyances including cars, motorcycles, trucks, trailers, buses, etc.

Acronym/Abbreviation

Definition

AARSI	Arrive Alive Road Safety Initiative
AAP	Annual Assessment Programme
APEC	Asia Pacific Economic Cooperation
BMI	Business Monitor International
BRICS	Brazil, Russia, India, China, South Africa
CDMA	Code Division Multiple Access
CIA	Central Intelligence Agency
CSR	Corporate Social Responsibility
CAGR	Cumulative Annual Growth rate
DSSP	Driving School Standardisation Programme
EDSTMA	Edo State Traffic Management Agency
EKSTMA	Ekiti State Traffic Management Authority
FCT	Federal Capital Territory
FEC	Federal Executive Council
FERMA	Federal Roads Maintenance Authority
FGN	Federal Government of Nigeria
FMoH	Federal Ministry of Health
FMoI	Federal Ministry of Information
FMoW	Federal Ministry of Works

Glossary of Terms, Acronyms and Abbreviations

Acronym/Abbreviation	Definition
FRSC	Federal Road Safety Commission
GRSP	Global Road Safety Partnership
GSM	Global Systems for Mobile Communication
IMF	International Monetary Fund
iRAP	International Road Assessment Programme
JTB	Joint Tax Board
KPPP	Key priority policies, programmes and projects
KSI	Killed and Seriously Injured
LG	Local Government
LASTMA	Lagos State Traffic Management Authority
MDA	Ministries, Departments and Agencies
MoFA	Ministry of Foreign Affairs
MVA	Motor Vehicle Administration
MVAA	Motor Vehicle Administration Agency
NAC	National Automotive Council
NAICOM	National Insurance Commission
NASS	National Assembly
NBS	National Bureau of Statistics
NCC	Nigerian Communications Commission

Glossary of Terms, Acronyms and Abbreviations

Acronym/Abbreviation	Definition
NCS	Nigeria Customs Service
NESREA	National Environmental Standards and Regulations Enforcement Agency
NGO	Non-Governmental Organisation
NOA	National Orientation Agency
NPA	Nigerian Ports Authority
NPF	Nigeria Police Force
NaRSAC	National Road Safety Advisory Council
NSCDC	Nigeria Security and Civil Defence Corps
NSE	Nigerian Stock Exchange
NSRSM	National Standards on Road Signs and Markings
OYRTMA	Oyo State Road Traffic Management Authority
PI	Performance Indicator
PS	Private Sector
PwC	PricewaterhouseCoopers
RSTD	Road Safety and Traffic Department
RSTMA	Rivers State Traffic Management Authority
RTC	Road Traffic Crash
RTSSS	Road Transport Safety Standardisation Scheme
SG	State Government
SMoH	State Ministry of Health

Glossary of Terms, Acronyms and Abbreviations

Acronym/Abbreviation	Definition
SMoI	State Ministry of Information
SMoPP&UD	State Ministries of Physical Planning & Urban Development
SMoT	State Ministry of Transport
SMoW	State Ministry of Works
SMVAA	State Motor Vehicle Administration Agency
SON	Standards Organisation of Nigeria
SSATPP	Sub-Saharan Africa Transport Policy Program
STMA	State Traffic Management Authority
TV	Television
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
USA	United States of America
VIC	Vehicle Inspection Centres
VIO	Vehicle Inspection Office
VRU	Vulnerable Road User
WHO	World Health Organisation

Glossary of Terms, Acronyms and Abbreviations

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