



# MINISTRY OF TRANSPORT AND INFRASTRUCTURE

## PROGRAM FOR ALTERNATIVE FINANCING MECHANISM FOR ROAD INFRASTRUCTURE DEVELOPMENT

### ROAD INFRASTRUCTURE STAKEHOLDERS CONFERENCE

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# PRESENTATION OUTLINE

1. Introduction
2. Current Status in the Roads Sub-sector
3. Trends in Road Development Financing
4. Alternative Road Development Framework
5. Annuity Financing Mechanism for Road Development
6. Cost Reduction Targets
7. Design Standards for Low-Volume Roads
8. Program Cost Estimates
9. Annuity Work-plan
10. Accomplishments to-date
11. Conclusions



# INTRODUCTION

- Road infrastructure is one of the key enablers identified under Kenya's Vision 2030 development strategy.
- At independence, Kenya's road network was 45,000 km of which 2,000 km (4.4%) was paved.
- Current road network is 161,000 km, of which only 14,100 km (8.8%) is paved.
- Average rate of expansion of paved roads over last 50 years is 242 km per year.
- The target of the Jubilee Government to aims to pave 10,000 km of roads within the next five years.



# INTRODUCTION

- Kenya's Infrastructure Funding Gap—estimated at **US\$ 2.1 billion (KShs 180 billion)** annually, for the next ten (10) years.
- The Roads Sub-Sector alone has a corresponding gap of **US\$ 44 million (approx. KShs 40 billion)** per year.
- Infrastructure gaps could be halved through **eliminating inefficiencies, and adoption of appropriate financing strategies and technologies.**

*Source: World Bank Policy Research Working Paper No 5596: Kenya's Infrastructure (2011).*



# INTRODUCTION

## Road Maintenance Funding Gap

Current road condition assessment are as follows:

Good - 11%  
Fair - 33%,  
Poor - 56%.

The optimal requirement for routine and periodic maintenance stands at **KShs 40 billion** while RMLF realizes only **KShs 25 billion** annually.

The shortfall for maintenance of existing road network amounts to **KShs 15 billion** annually.



# CURRENT STATUS IN THE ROADS SUB-SECTOR

The portfolio of road projects in the Roads Sub-Sector is as follows:

Item	Details	Amount (KShs billion)	Remarks
1	Total pending bills as at 31 <sup>st</sup> Dec 2013	25.3	Includes ongoing contracts and completed works
2	Pending bills previously settled	9.6	As at April, 2014
3	Settled	15.7	As at July, 2014
4	Balance of ongoing Commitments yet to be billed and Certified (as at 31 <sup>st</sup> Dec 2013)	88.3	Expected to be cleared within the next 3 Fiscal Years



## CURRENT STATUS IN THE ROADS SUB-SECTOR

- The Government has allocated **KShs 41 Billion** in FY 2014/2015 to meet part of the ongoing commitments and pending bills.
- Balance of **Ksh.47 billion** to complete the ongoing contracts to be provided over the next two financial years.
- This situation calls for alternative financing and delivery methodologies to achieve the set targets of 10,000 Kms of new paved roads.





# TRENDS IN ROAD DEVELOPMENT FINANCING

- In the past, the Government has financed development of roads through traditional mechanisms (Exchequer & RMLF).
- Road infrastructure gap has continued to grow due to increased demands and hence the need for a paradigm shift in financing road development.
- This shift entails leverage of private sector capacity for delivery of road infrastructure, including:
  - **Financing:** Alternative financing methods (Annuity, conventional PPPs and others)
  - **Road Design:** Reviewing design standards and construction methodologies to achieve appropriate solutions, such as low volume sealed roads.





# ALTERNATIVE ROAD DEVELOPMENT FRAMEWORK

Two alternative Road Delivery Methodologies will be used:

## 1. Public-Private Partnerships (PPP)

- Involves the Private Sector taking full control and responsibility for delivery of roads (Financing, Designing, Construction, Maintenance and Operation of the road).
- The recovery of initial investments will be through Toll Proceeds.
- Viable roads such as the Northern Corridor and the Nairobi-Thika Road are to be upgraded and improved under PPPs.

## 2. Annuity Model

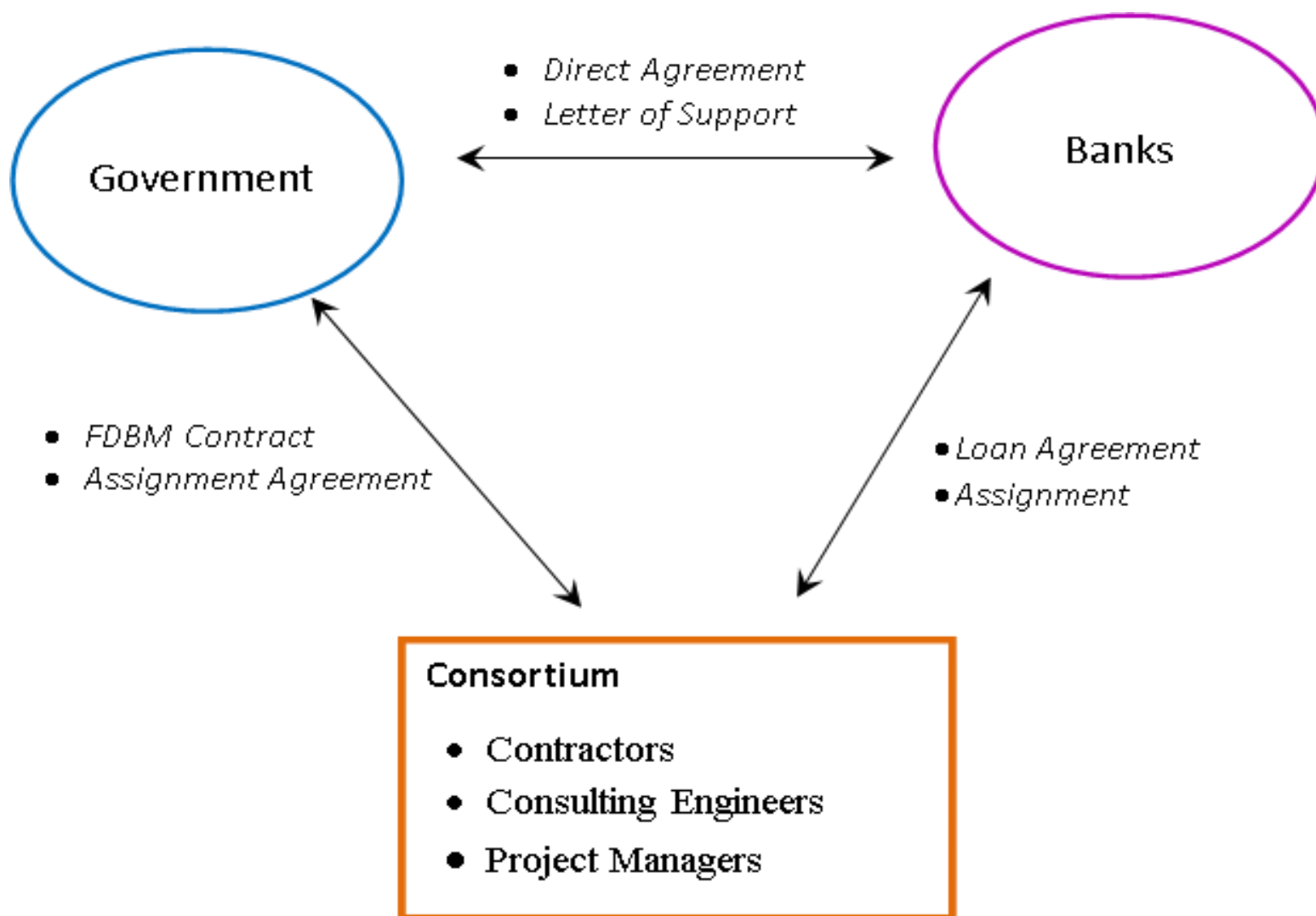
- Involves engagement of a private entity to finance, design, and construct/maintain a road based on agreed periodical payments by the Government (extended payment period beyond construction phase).
- The Sub-Sector has selected the Annuity Model for roads that are not viable for Conventional Tolling PPPs.



# Annuity Financing Mechanism for Roads Development



# CONCEPTUAL FRAMEWORK OF THE ANNUITY MODEL





## ANNUITY MODEL

The model will work as follows:

- The contractor will design, build and maintain the roads.
- The contractor will source for funds
- A payment modality will be agreed upon between the tripartite of the Government, contractor and bank (certification of works, milestones and assignment).
- The Government will reimburse the consortium/banks at a uniform rate over an agreed period (annuity).
- Contractors will complete contracted works within the stipulated time [not exceeding three (3) years].
- Contractors will guarantee construction quality and undertake post-construction maintenance of roads.



## COST REDUCTION TARGETS

Unit costs for construction of roads range from **KShs 40 million** to **KShs 100 million** per km depending on scope of works.

Costs relate to:

- **Design Standards adopted**
- **Contract overheads (financing and management costs)**
- **Price escalation (mainly due to prolongation of contracts and compensation events)**





## COST REDUCTION TARGETS

The Ministry plans to reduce unit costs through adoption of strategies addressing:

- Appropriate design standards and construction technologies
- Reduction in corridor acquisition costs
- Use of '*Design-Build-Maintain*' and Annuity Financing model.

The program targets to achieve the following:

- Low-Volume rural roads – KShs 20-25 million/km
- Trunk and Urban Roads – KShs 50-80 million/km



# DESIGN STANDARDS FOR LOW-VOLUME ROADS

- Until recently, the minimum road pavement design standard was **1,000,000 Cumulative Equivalent Standard Axles (CESA)** while rural roads frequently have far less traffic.
- The effect has been that roads were overdesigned and construction costs were therefore correspondingly high.
- The following standards will be adopted for low volume sealed roads (Traffic Class T5) representing majority of the 10,000 kms,

Previous Classification	Standard Axles (CESA)	Adopted Classification	Standard Axles (CESA)
T5	0 – 1,000,000	T5-4	<25,000
		T5-3	25,000 - 100,000
		T5-2	100,000 - 250,000
		T5-1	250,000 - 500,000
		T5-0	500,000 - 1,000,000





## PROGRAM COST ESTIMATES

The target budgets under the annuity framework

Phases	Target output (km)	Cost estimate (KShs billions)
Phase 1	2,000	40
Phase 2	3,000	60
Phase 3	5,000	160
<b>Totals</b>	<b>10,000</b>	<b>260</b>

- The roads to be implemented under Annuity framework have been packaged.
- Procurement for Phase 1 Annuity projects commenced through advertisement of RfQ on 26<sup>th</sup> July 2014.
- Prequalification Applications due 11th August, 2014



# PROGRAM COST PROJECTIONS

Budget Financial Year	Total Annuity payment		Gross Total Annuity Payment
	8,000km (Rural low cost)	2,000km (Highways/urban)	
2014/2015	3,000,000,000	-	3,000,000,000
2015/2016	17,072,702,322	17,072,702,322	34,145,404,644
2016/2017	27,316,323,716	17,072,702,322	44,389,026,038
2017/2018	27,316,323,715	17,072,702,322	44,389,026,037
2018/2019	27,316,323,715	17,072,702,322	44,389,026,037
2019/2020	27,316,323,715	17,072,702,322	44,389,026,037
2020/2021	27,316,323,715	17,072,702,322	44,389,026,037
2021/2022	27,316,323,715	17,072,702,322	44,389,026,037
2022/2023	20,487,242,786	17,072,702,322	37,559,945,108
2023/2024	10,243,621,393	-	10,243,621,393
Totals	218,530,589,723	136,581,618,576	351,283,127,370
Cost	160,000,000,000	100,000,000,000	260,000,000,000
Bank Interest	58,530,589,723	36,581,618,576	91,283,127,370



# ANNUITY PROGRAM WORK-PLAN

ID	Task Name	Duration	Start	Finish	r 2, 2014		Qtr 3, 2014			Qtr 4, 2014				Qt
					May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
1	Infrastructure Consultative Forum	1 day	24 Jun	24 Jun										
2	Finalise RFQ Documents	4 days	25 Jun	30 Jun										
3	Issue /Advertise RFQs	3 days	26 Jun	30 Jun										
4	Issue Approved List of Lots	19 days?	01 Jul	25 Jul										
5	Issue Tender Notices	1 day?	28 Jul	28 Jul										
6	Infrastructure Stakeholder Conference	1 day	28 Jul	28 Jul										
7	Pre-Application Conference	1 day	31 Jul	31 Jul										
8	Receive PQ Applications	34 days	01 Jul	15 Aug										
9	Evaluate PQ Applications	7 days	18 Aug	26 Aug										
10	TC Approval of Annuity Shortlist	1 day?	27 Aug	27 Aug										
11	Close Bank Financing Procedures	5 days	27 Aug	02 Sep										
12	AG Approval of Annuity Form of Contract	60 days	05 May	25 Jul										
13	Invite Annuity Tenders	1 day	28 Aug	28 Aug										
14	Pre-Bid Conference	1 day?	29 Aug	29 Aug										
15	Responses to Tender Queries	1 day?	01 Sep	01 Sep										
16	Receipt of Annuity Tenders	60 days	02 Sep	24 Nov										
17	Evaluate Annuity Tenders+Clarifications	14 days	25 Nov	12 Dec										
18	TC Approval of Annuity Tenders	3 days	15 Dec	17 Dec										
19	Commercial and Financial Closure	2 days?	18 Dec	19 Dec										
20	Commercial/Technical	1 day?	18 Dec	18 Dec										
21	Financial Close	1 day?	19 Dec	19 Dec										
22	Contract Mobilisation	15 days	30 Nov	09 Jan										
23	Official Launch	7 days	30 Nov	23 Jan										

Project: Annuity Works Program - Upd  
Date: 28 Jul

Task

Progress

Milestone

Summary



Rolled Up Task

Rolled Up Milestone

Rolled Up Progress

Split



External Tasks

Project Summary

Group By Summary

Deadline





# ACCOMPLISHMENTS - ANNUITY PROGRAM

- Draft designs for majority of the program roads are available
- Framework of engagement between the Government and Private Sector extensively discussed.
- Priority program of roads totalling **10,000 km** identified out of which some **5,000 km** vetted and are ready for implementation
- Request for Qualification (RFQ) document prepared and advertised
- Request for Proposals (Tender Documents) for works contracts forwarded to the State Law Office for Legal Clearance.



# ACCOMPLISHMENTS - ANNUITY PROGRAM

- Sensitization of Private Sector players conducted on 24th June, 2014
- A provision of Kshs 3.0 billion has been made in the **FY 2014/15** budget to start off **Phase I** of the Annuity Program.
- Road Development Stakeholder Conference on **30<sup>th</sup> July, 2014** to sensitize stakeholders
- Pre-Application Conference has been planned for **31<sup>st</sup> July, 2014.**



# CONCLUSIONS




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1. Adoption of this approach will drive efforts towards the realization of the Vision2030 Strategy, and Government objectives and targets of increasing the paved road network.
2. Better surface roads supports existing and new transportation business opportunities, access to markets and enhanced rural production.
3. Mobility Enhancement – encourages national integration, trade and improved security, increased opportunities in rural areas and inter-urban/rural transport will encourage income distribution, and address poverty and rural-urban migration.
4. It will help revamp the Construction and Financial Sectors of the Economy, enhance local capacity, facilitate job-creation and enhance economic growth.

## CONCLUSION

When implemented, we shall have increased the paved network by 71% in five years.



A large-scale road construction project is underway. A massive orange truck is in the process of dumping a load of dark material, likely asphalt or gravel, onto a prepared road surface. A large group of workers, many wearing orange high-visibility vests, are positioned along the road, using long-handled tools to spread and level the material. In the foreground, a worker in a blue uniform and cap is seen from the side, working on the edge of the road. The background shows a clear blue sky, green trees, and some buildings, indicating an urban or suburban setting.

END  
THANK YOU