A Case for Annuity Concession PPP Model for Funding Roads Infrastructure Projects



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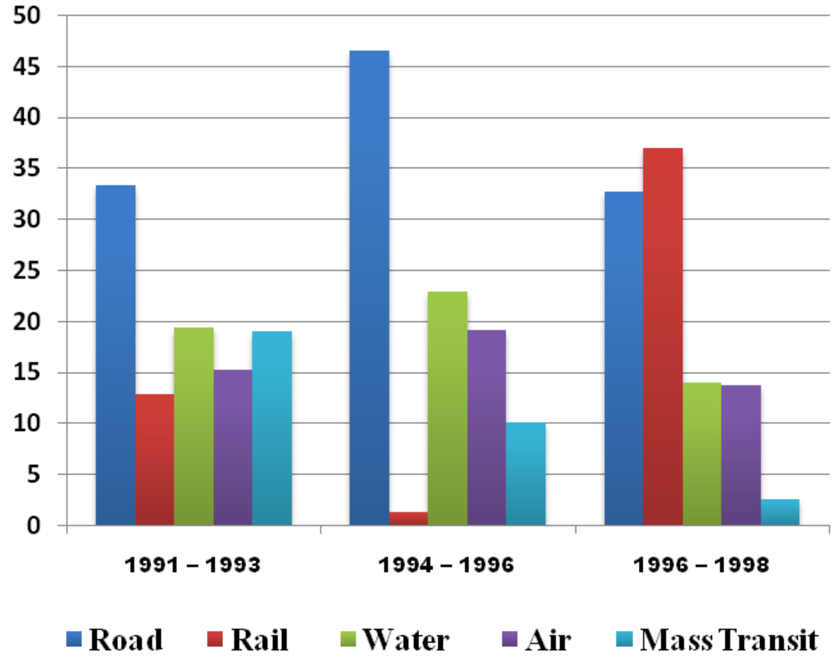
Background

- The Nigerian transport system comprises: road, railways, water, air and pipeline transport. However roads are the dominant mode for intra-state and interstate passenger and goods movement conveying both passenger and goods

- Under the National Rolling Plans of the 1990s, the road sector received the largest share of Federal funds allocated to the sector.

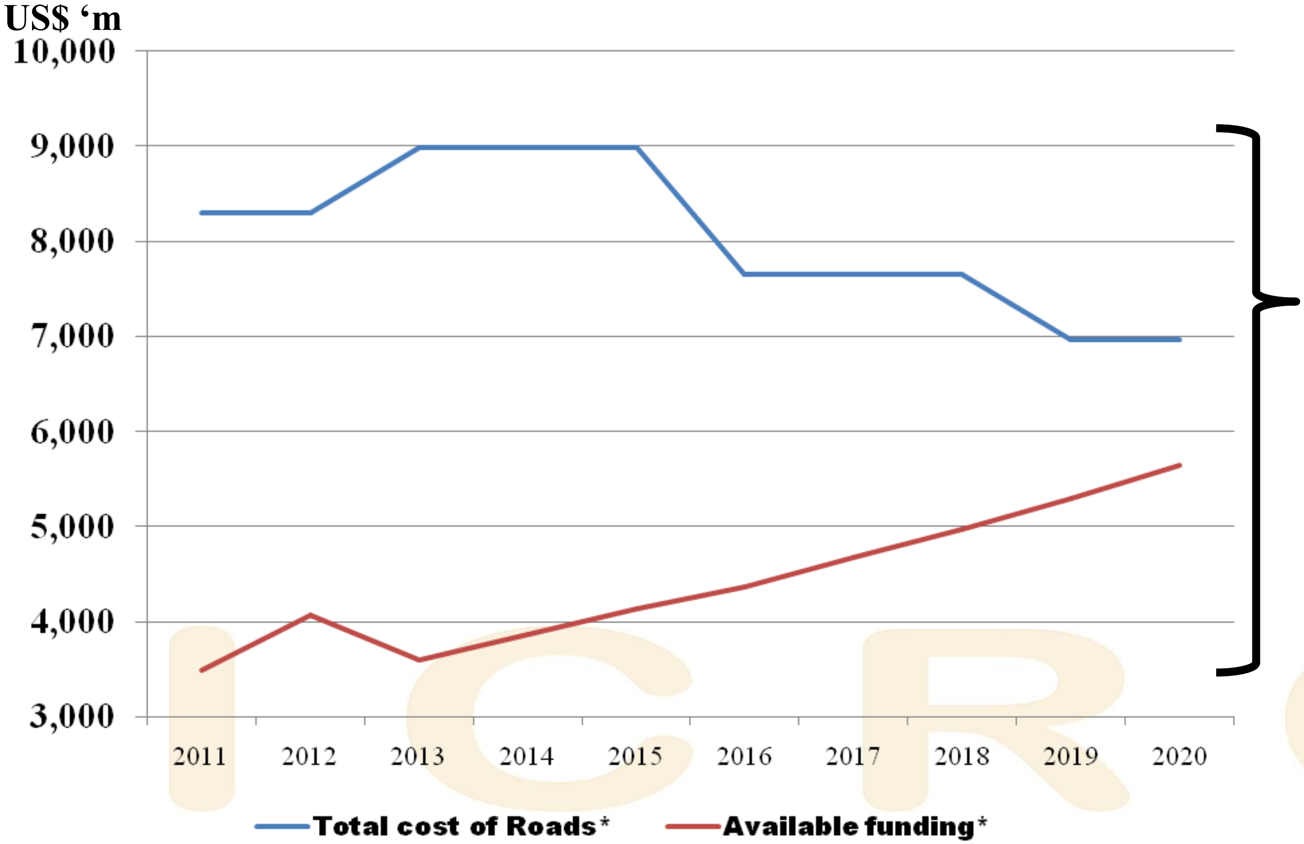
- The graph depicts that roads received 33.4%, 46.5% and 32.7% of the Federal Transport allocation for the periods 1991-1993; 1994-1996; and 1996-1998



Source: Federal Republic of Nigeria (1990).

Background

- More to the present, the total cost of the road program for 2011 – 2020 for Federal, State and LGAs including maintenance has been estimated at US $ 80,420 million as depicted by the table below:



Funding Gap

The funding gap is expected to decline from 69% to 19% by 2020 assuming the investment required declines due to improvement of roads infrastructure

*Note:*Capital budget of FMoW, FERMA, State Govt. and Donors*

Source: Extracted from ADB, 2011: 94, 97

Background

- In Nigeria, funding for road infrastructure is typically sourced from the traditional budgetary allocations. However, the outlook presented above highlights that **funds will have to be sourced outside the public purse to develop and maintain our** highways; in order to meet the objectives of the NV20:2020 Medium- Term Implementation Plan (2010-2013)

- Alternate options for funding roads construction and maintenance should therefore be explored...

?

Snapshot of Funding Options

On-budget Funding

Funding is from government revenue. Due to pressing infrastructure deficit and other government obligations, this option is no longer attractive to meet the challenges facing the physical infrastructure sectors

Off-budget Funding

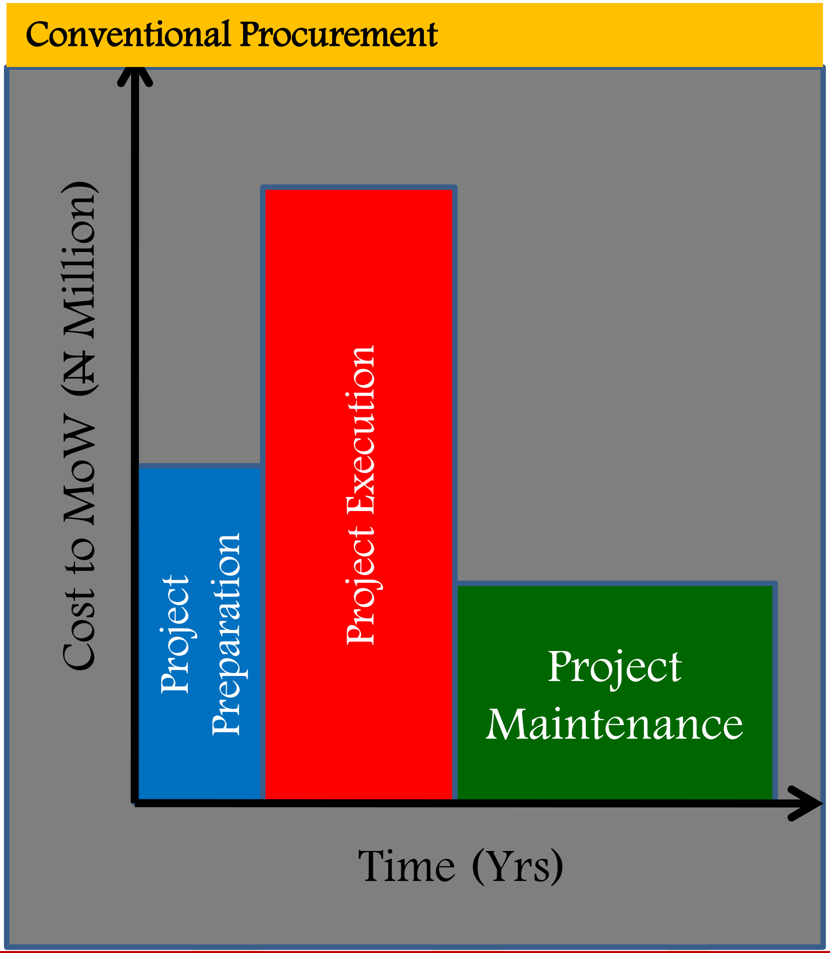
These include: Special intervention funds,
Bonds,
Low-interest concessional loans,
Financing from support and infrastructure agencies (World bank, DFID, ADB)
Typically, the government still assumes some financial obligations or commitments

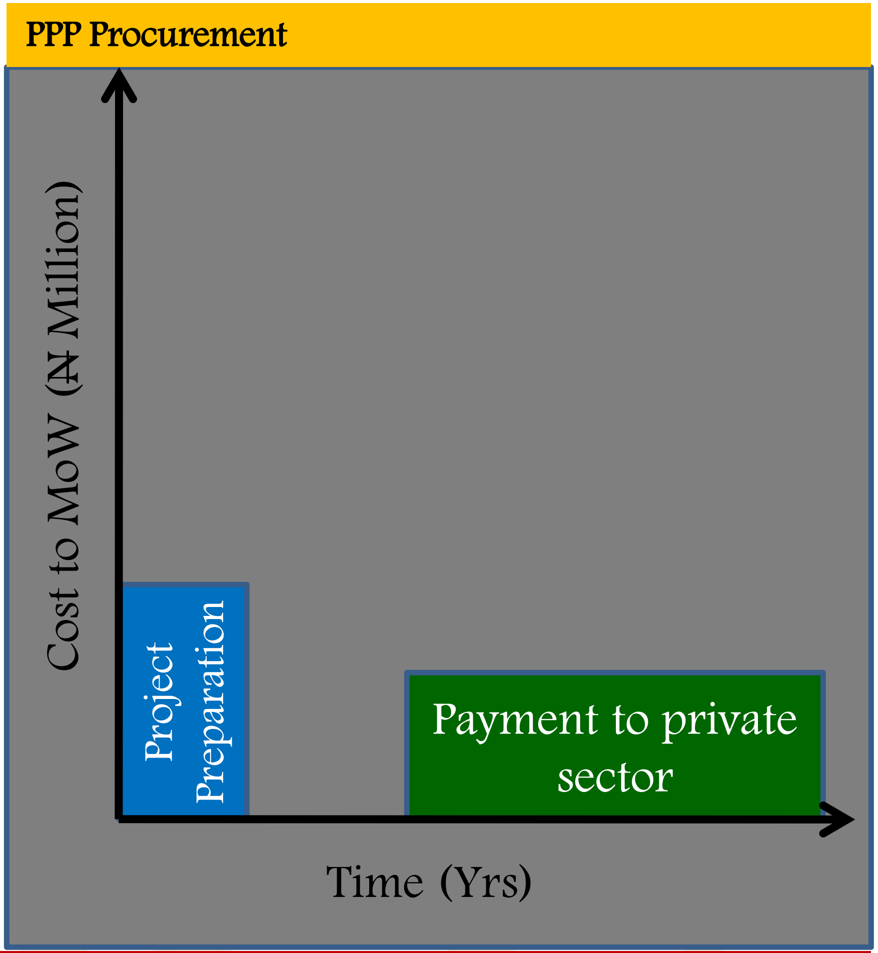
Private Sector Funding

Funding is sourced through means that may require minimal or no government contribution. Such mechanisms include PPP funding

Snapshot of Funding Options

Benefits of PPP (private sector) funding





Although project preparation costs in PPP are high, PPP allows MDAs to spread costs across entire project life cycle.

Current Status

In response to the situation…(1)

- The Federal Ministry of Works embarked on a Public Private Partnership (PPP) program with the support of the Infrastructure Concession Regulatory Commission (ICRC).

- **Early victories**
  - The establishment of a PPP Unit (one of the pioneering PPP Units in the country at the Federal level)
  - Identification and prioritization of possible PPP projects
  - Commissioning of consultants to develop Outline Business Case (OBC) for selected roads projects, in line with requirements of the National Policy on Public Private Partnership (N4P)

- These achievements are part of activities geared towards developing a marketable PPP pipeline thereby boosting investor confidence in the roads sector

Current Status

Some of the challenges facing the PPP program...(2)

- The PPP project development cycle is rigorous but long...

Development Phase	Procurement Phase	Implementation Phase
9 months*	24 months*	3 – 5 years*
▪ *Needs Analysis* ▪ *PPP Options appraisal* ▪ *Value for Money* ▪ *Affordability* ▪ *Sustainability* ▪ *Prelim Risk Matrix* ▪ *Viability/Bankability* ▪ *VGF assessment* ▪ *OBC approval*	▪ *Transaction adviser* ▪ *EoI and RFP* ▪ *Bidding* ▪ *Bidders Conference* ▪ *Bid Evaluation* ▪ *Value for Money Test* ▪ *Preferred Bidder* ▪ *Full Business Case* ▪ *FEC Approval*	▪ *Technical Adviser* ▪ *Project Monitoring* ▪ *Commissioning Test* ▪ *Verify Output Requirements* ▪ *Contract management*

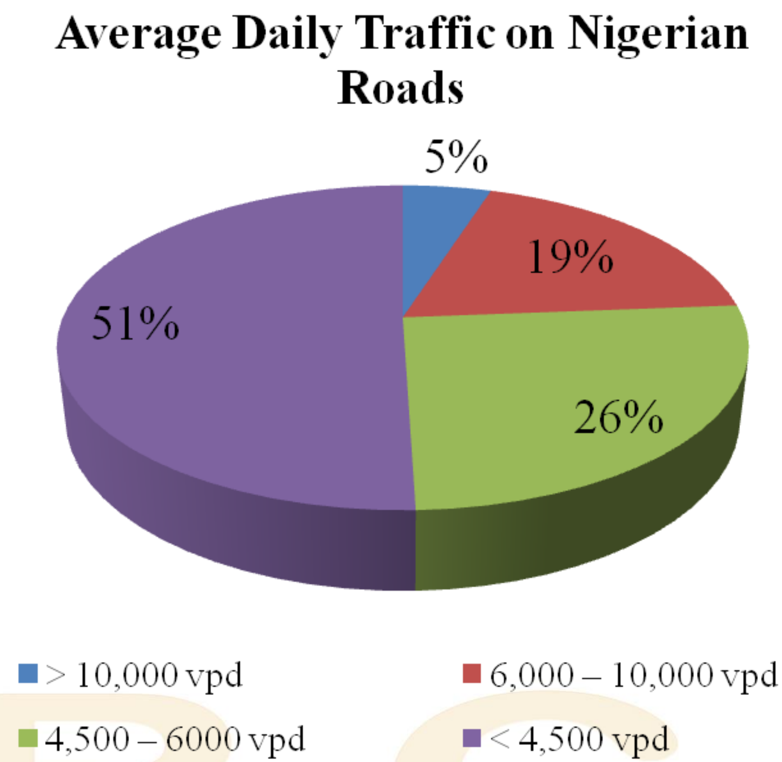
* Indicative timelines

Current Status

Some of the challenges facing the PPP program...(3)

- **A good number of federal roads may not be considered as *"economically viable"* for private sector investment...**

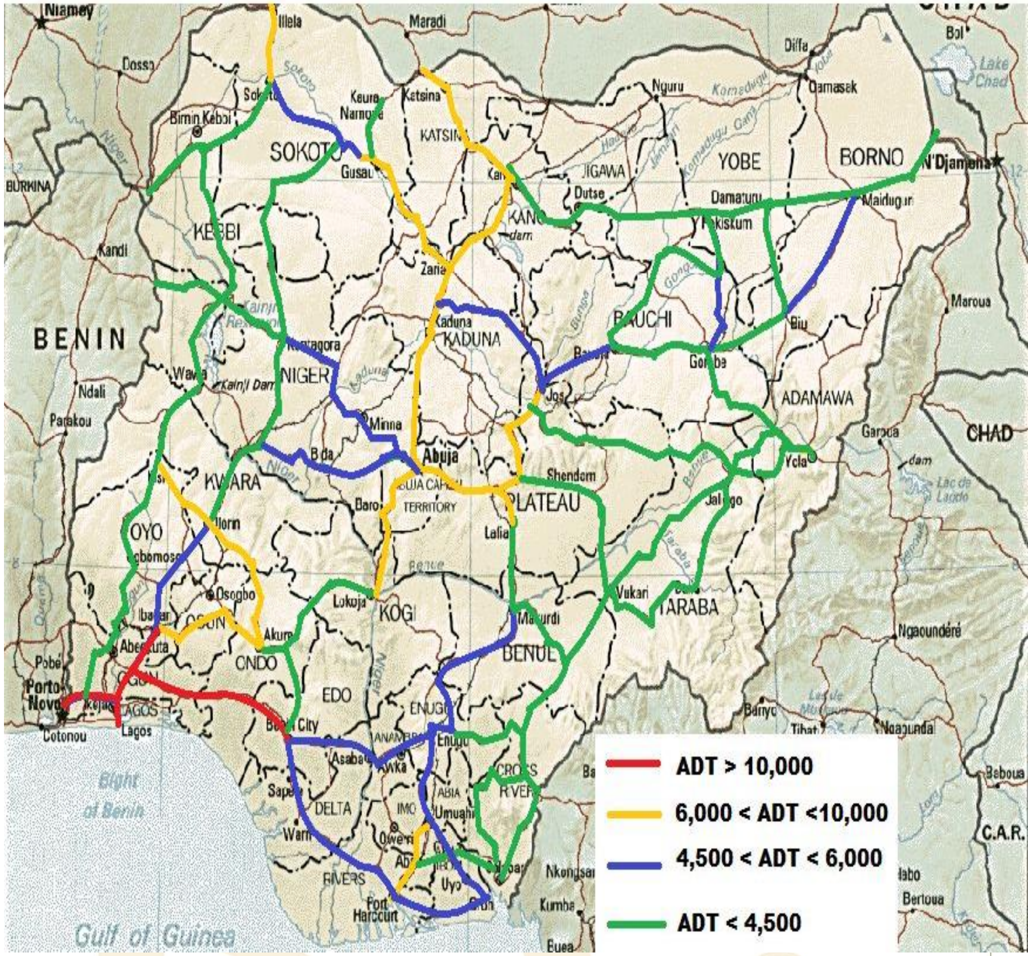
- A key measure of the economic viability of road projects is *demand*, indicated by daily traffic volumes. Although Nigeria has a total road network of above 193,200 km, the chart shows that only about 5% of our roads carry over 10,000 vehicles per day (VPD)



Current Status

Some of the challenges facing the PPP program…(4)

- Generally, average daily traffic (ADT) of 15,000 vehicles per day (VPD) is attractive for tolling. However, only about 5% of Nigeria's roads meet this criterion.
- Less than 10,000 VPD tend not to be viable as toll roads, unless additional funds are provided to offset the loss likely to be suffered by the investor



Proposed Solution

Annuity Payments Concession Model (1)

- In order to address the challenges facing PPP toll road projects, it is proposed that **annuity payments** concession model should be considered as a viable option for development of roads in Nigeria under the PPP arrangement.

- **Annuity Concessions** are a variant of the Build Operate Transfer (BOT) PPP model in which the private operator is remunerated via a fixed, periodic payment ("annuity") from the government rather than through toll proceeds.

- Under these PPP contracts, the private operator is responsible both for constructing the road, as well as for operating and maintaining it for a fixed period of time.

- However, this option significantly reduces revenue risk for the private sector and also incentivizes the private sector to then propose innovative financing and construction options.

Proposed Solution

Why Annuity Payments Concession Model (2)

Shorter Project Development Cycle

- Under annuity concession model the project lifecycle could be significantly shortened as depicted below:

Development Phase | **Procurement Phase** → **Implementation Phase**

6 months *

TBD *

Development and Procurement Phase:
- ☐ Financial and Transaction Advisor Appointed
- ☐ Financial Model Completed
- ☐ EoI and RFP and Bidding
- ☐ Bidders Conference
- ☐ Bid Evaluation
- ☐ Value for Money Test
- ☐ Preferred Bidder
- ☐ Full Business Case
- ☐ FEC Approval

Implementation Phase:
- ☐ Technical Adviser
- ☐ Project Monitoring
- ☐ Commissioning Test
- ☐ Verify Output Requirements
- ☐ Contract management

Proposed Solution

Why Annuity Payments Concession Model? (3)

Less risky PPP model

- Because the annuity payments are fixed and not indexed, the private sector retains any risks associated with higher than anticipated operations and maintenance (O&M) costs.

- This model is effective for de-risking road PPPs and attracting Private Sector Participation since revenue streams are more predictable. Under this model, concerns about the economic viability of a road are linked to the concession payments and not the traffic volumes the road witnesses.

- Annuity concessions have been successfully used in India and are perceived by the investment community as having a secure and stable source of funding (the annuity payments, are financed by ring fenced fuel taxes in India)

- Generally, there is no requirement for debt servicing during the construction period and repayment begins after project commissioning

Proposed Solution

How does this model work? (4)

1. Annuity Concessions are usually procured via a competitive bidding process. This will including prequalification based on bidders' experience and financial capability.

2. The Annuity concession is then awarded to the bidder offering to perform the work with the most technically and financially sound proposal (indicated by the lowest annuity payment).

3. Although selection would primarily be based on the financial bid of prospective concessionaires, the technical proposals must comply with predefined design, construction, O&M and hand-back requirements.

Proposed Solution

How does this model work? (5)

- **The proposed Annuity Concession structure for Nigeria is as follows:**

  – The concession process will be a one-stage competitive procurement process. All required feasibility studies will be done and financed by the private sector as part of the Annuity Bidding process. As this process could be quite expensive to the private sector participants, the successful bidder may be required to provide a performance bond to the government and part of this payment may be used compensation to unsuccessful bidders.

  – Annuity Concession contracts will be bided competitively for selected roads and awarded to the bidder providing the most technically and financially sound proposal

  – For Each selected road, the Federal Government will raise a 20 year specific road construction/rehabilitation bond via the DMO. The proceeds from the road bond will be used to pay annuity commitments from the concession contracts as awarded above.

Proposed Solution

How does this model work? (6)

- **The proposed Annuity Concession structure (Cont'd):**
  - On conclusion of the road and commencement of Annuity Payments, the Federal Government will collect tolls from the road via a private sector toll systems operator or the concessionaire
  - The tolls collected will be paid into a special Debt Service Account that would be used to pay the road bond interest payments and full payment at maturity
  - Depending on the commercial viability of the road, the government may be required to provide Viability Gap Funding (VGF) to augment the toll revenue, which will be used for the bond repayments. This funding could be *on-budget* or could be part of *off-budget* funding, such as a Road Sector Infrastructure Development Intervention Fund.
  - At the end of the concession period the government will take over management and operations of the road or award another Annuity Concession for a new period.

Proposed Solution

In summary...(7)

- **Benefits of Annuity Payment Concessions**

  – Annuity payments are also referred to as "Availability Payments" because**, Annuity Concessions do not require any advance payment to the private operator**. The Government does not begin paying the annuities until the road is constructed i.e. until the roads are "available for usage" in accordance with predetermined quality standards

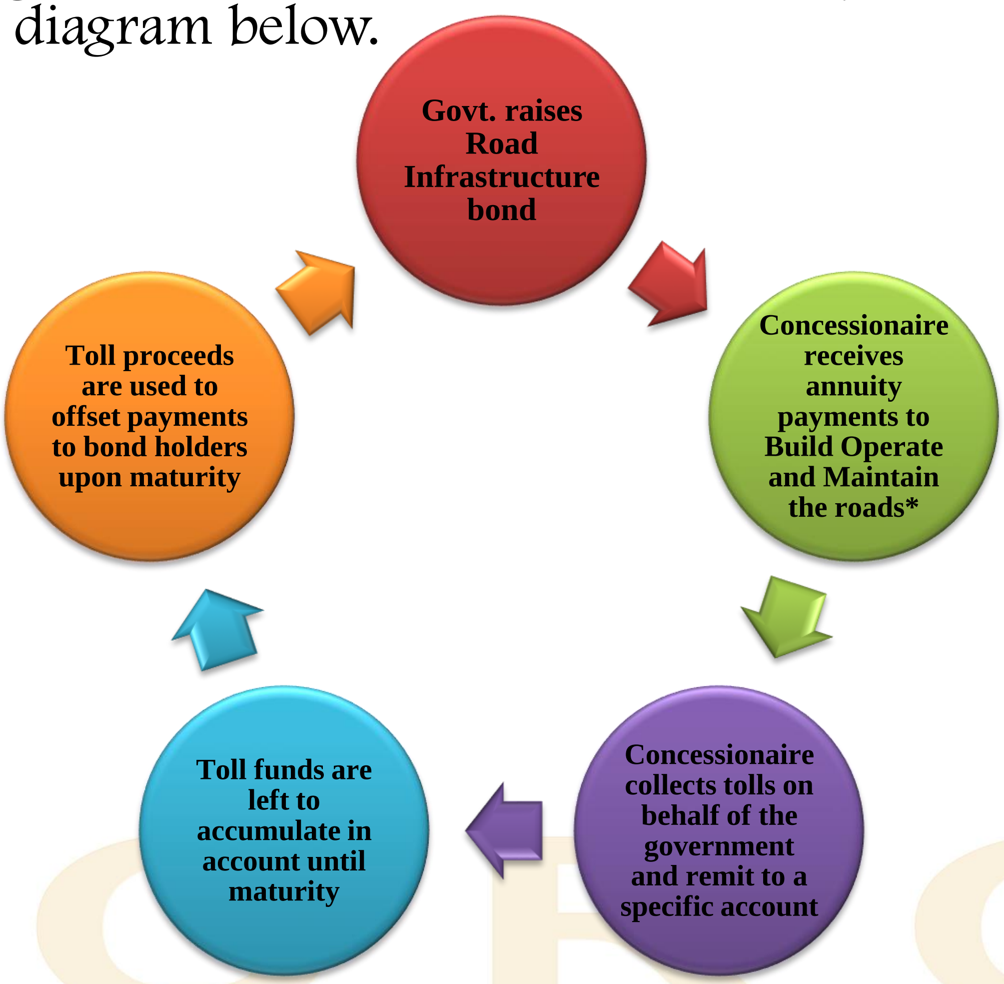
  – The Annuity Concession model rewards early completion and provides the private operator with a built-in incentive to ensure that the road is constructed in a way that minimizes long term O&M costs while meeting quality standards

  – These model of PPPs has been found to be increasingly more attractive to private sector players as the risk profile is more predictable

Proposed Solution

How does this model work? (8)

- A systems diagram post the award of the Annuity Concession is shown in the diagram below.



- * Annuity payments are funded by investments from the bond

Proposed Solution

In summary...(9)

- **Other advantages include:**
  - Transfer of initial financing, construction, O&M, and project completion risks to the private sector;
  - Construction completed much faster and less expensively than under traditional EPC contracts;
  - The annuity payment structure allows a firm calculation of Governments financial exposure under the contract;
  - The fixed nature of the annuity payments significantly reduces the risk of contract renegotiation with the private sector; and
  - Substantial growth of domestic private sector capacity (not just in construction, but in operations and maintenance as well) in the roads sector in countries like India that have practised it.

Our Prayer

- In view of all the above, the Annuity Concession PPP model is proposed as preferred funding option for Nigeria.
- **Our prayer is that the Honourable Minister of works should consider the Implementation Plan outlined as follows:**

1. Form a Road Annuity Inter-ministerial Concession Team
2. Select 6 critical roads i.e. One per geopolitical zone to pilot the program
3. FGN to employ a financial adviser who has worked on an Annuity Concession in India or other emerging markets e.g. Standard Chartered Bank as Advisers to develop bids, funding mechanism and act as transaction adviser

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