Railways in Sub-Saharan Africa

World Bank Strategic Approach

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The challenges

Despite large investment by both national governments and the private sector, the revival of railways sector in Africa is fragile and features:

- Limited capacity
- Poor reliability
- Weak financial performance
- Poor infrastructure density
- Under-performing concessions
The challenges

In the African context
- Inadequate railways infrastructure and logistics connectivity
- Low traffic volumes
- Low productivity of assets
- Low productivity of labor
- Strong competition from road

In the concessioning of railways systems
- Underestimation of investment needs
- Overestimation of traffic volumes
- Undercapitalization
- Inadequate human resources
- Inadequate marketing approach to transport demand
The challenges

**In Governance**
- Inadequate regulation
- Inadequate concessions contract and fees
- Inconsistencies or weaknesses in transport policies
- Unrealistic expectations
- Shortfall in financial obligations

**In previous Rail projects**
- Systematic PPP/concession strategic approach
- Shortfall in transport integration (logistics) strategy
- Shortfall in indicators and incentives for the economic sustainability of projects
Is the rail a meaningful transport system?

**freight**

**passengers**

**Freight Traffic Evolution**

**Passenger Traffic Evolution**

Source: UIC Statistics 2010
How does Africa’s rail traffic compare to the rest of the world?

**freight**

Volume of freight transported by rail in 2010 [billion ton-km]

- Asia and Oceania: 37%
- America: 33%
- Europe*: 28%
- Africa: 2%

**passengers**

Passengers transported by rail in 2010 [billion pass-km]

- Asia and Oceania: 75%
- Europe*: 22%
- America: 1%
- Africa: 2%
How are the Sub-Saharan African railways performing?

Traffic Intensity Comparison

- China: 48,949,154
- Russia: 25,211,462
- India: 23,509,754
- USA: 12,697,245
- Australia: 7,622,593
- South Africa: 5,768,762
- Germany: 5,469,792
- Morocco: 4,747,359
- Sub-Saharan Afr.: 922,147

Traffic Intensity Benchmark in Africa

- Africa: 3,796,735
- North Africa: 4,705,010
- South Africa: 5,768,762
- Sub-Saharan Afr.: 922,147

Traffic Density in various sub-Saharan Railways

- TRSANGABO: 2,900,000
- CAMRAIL: 1,398,043
- SITARAIL: 730,120
- CFCO: 600,325
- TRANSRAIL: 343,922
- MADARAIL: 241,410
- SNCC: 63,169

All charts from the UIC Statistics – 2010 and statistic data about concession railways in SSA collected yearly by the World Bank (Pierre Pozzo di Borgo)
How are the rail concessions performing in SSA?

<table>
<thead>
<tr>
<th>Concession</th>
<th>Countries</th>
<th>Year of concession</th>
<th>Current Performance</th>
<th>Investment responsibility</th>
<th>Cancelled concessions</th>
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<tbody>
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<td>Operational</td>
<td>Financial</td>
<td>Infrastructure</td>
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<td>Malawi</td>
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<td>Senegal, Mali</td>
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<td>KRC-URC</td>
<td>Kenya-Uganda</td>
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<td>DR Congo</td>
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<td>D</td>
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</table>

**Operational:**
- A = best in class
- B = average
- C = below average
- D = worse in class

**Financial**
- A = strong positive cash flow, sustainable debt load
- B = positive cash flow, average debt load
- C = positive cash flow, negative income, higher than avg debt load
- D = negative cash flow, negative income, high debt load

Prioritizing and adjusting rail developments to reality

- Affordable investment levels
  - Long distances in Africa = high infrastructure costs, high maintenance costs => need to prioritize and target
  - Single track vs double track, standard vs narrow => need to adjust investment to real market potential

- Existing operations standards
  - old fashioned rail ops = low labor productivity
  - local traditional markets = low transport productivity
  - Africa specificities = high wear and tear, high maintenance costs
Designing new approaches to Rail developments

- Re-assessing transport market
  - High end profitable segments: containerized goods, minerals
  - Low end non solvable segments: non bulk-non container general cargo, passengers

- Re-assessing rail operations
  - High efficiency, low cost: containerized goods, minerals
  - Low efficiency, low cost: bulk freight, long distance
  - Low efficiency, low revenues and high costs: non bulk/local freight, passengers

- Re-assessing the rail into the transport sector:
  - As an element of the logistics chain for businesses and industries
  - As an element of the intermodal transport system for freight
  - As an element of social and human development for passengers services
Understanding the financial basics

- High infrastructure costs => high levels of capex and high levels of debt servicing for next generations
- Consumer market segments (passengers, non-bulk freight) = low productivity, negative operating cash-flow

1. Rail systems should be primarily dedicated to core solvable/profitable segments
2. Non-profitable, non-solvable segments can only exist if subsidized at same level as road transport
3. Concessions agreements and KPI to be linked to:
   - (i) operating and financial performance on core segments
   - (ii) service levels on subsidized “service obligations”
Building an efficient institutional environment for rail systems

- Strong Rail regulation is essential
- Concession is not (always) an answer
- Rail strategy should be progressive and sustainable
- Private investment requires long term guarantees and strong institutional frameworks
- Governments should honor their financial commitments
- Cash flows identification and transparent revenues transfer / management is a key element of a successful rail strategy
Challenging common place views

- “Road transport is the main competitor”
  
  *false: road only supplies what rail cannot deliver - road can have a powerful leverage on rail developments (linkages)*

- “Concessions will attract and develop private investment”
  
  *true: mining related or industry dedicated rail developments will attract investors*

  *false: non-mining/passengers concessions are cash-suckers*

- “Rail gauge is critical”
  
  *false: there is no traffic forecast in SSA that existing Cape/narrow gauge cannot handle (with some rehabilitation)*

- “Rail capacity on single track systems is limited”
  
  *false: double track primarily facilitates intensity, not capacity*
Key elements of World Bank approach to rail projects

- Focus on rail operations: ultimately the customer wants a reliable service!
- Focus on the solvable market: evidence shows that freight is where the rail can find value.
- Design projects around the economic sustainability of the system: long term maintenance of infrastructure and reliability of operations.
- Support strong rail regulation and regulator.
- No ideological approach to engagement.
Thank you!