Establishment and growth of a Road and Transport Research Centre in Uganda

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Introduction

- Transport infrastructure & services vital for the economic development of Uganda
- Road sector faces challenges in the delivery and maintenance of infrastructure
- UNRA network: approx. 3,500 km is paved, **17,500 km is gravel or earth roads**
- The Department (RTRC) was established in 2016: 1 staff member, no resources (plans, funds, laboratory, processes & procedures, knowledge/training facilities)
Institutionalising RDI in UNRA

- UNRA’s Strategic Plan (2013/14 – 2017/18)
  - Research, innovation, and best practices important for achieving Strategy objectives

- Corporate Strategic Plan (2017/18-2022/23)
  - RDI a key strategic initiative towards the effective execution of the Plan
  - RDI supporting the continuous development of the organization, and the roads and transport sector
Objectives of RTRC

- Provide evidence-based advice on ways to construct good quality roads that last their lifetime

- Develop knowledge for evidence-based decision making on efficient & effective management of the national roads network and other services provided by UNRA

- Promote the continuous improvement of the services provided by UNRA

- Partner with universities and research institutions in advancing research on roads development & maintenance

- Foster technology & knowledge transfer through technical assistance
Establishment & Growth of the RTRC

Stepwise process, with resources as key constraint:

- **Step 1:** Develop an organizational structure to enable The Department function effectively as a RTRC
- **Step 2:** Define/ Clarify The Department’s role and strategic objectives
- **Step 3:** Recruit a core team of researchers
- **Step 4:** Identify initial research initiatives, and undertake prioritisation
- **Step 5:** Establish strategic partnerships to bridge resource gaps and leverage missing competencies
Establishment & Growth of the RTRC

- Step 6: Undertake a research and development baseline study, and develop a centralised knowledge database

- Step 7: Prepare policy, guidelines, manuals and other documents for efficient research management and other internal controls

- Step 8: Prepare 5- and 10-year business plans

- Step 9: Develop a Skills & Capabilities Enhancement Plan in line with the 5- and 10-year business plans
Three Key Initiatives
1. Research Coordination

- Established a National Research Steering Committee
- Composed of government MDAs with responsibility for roads and transport, and academia
  - Uganda National Council of Science and Technology
  - Ministry of Works and Transport
  - KCCA
  - UNRA
  - Academia (Makerere University)
  - Uganda Road Fund
  - Ministry of Local Government
2. Establishment of Research Baseline

Aims

- Establish baseline of past and current road and transport research on Uganda
- Establish a web-based databank that enables access to research

Progress

- Phase 1 complete

Findings

- Unsatisfactory research linkages between government, industry, and academia
- Absence of a centralised knowledge database on roads and transport research that is accessible by all stakeholders
- Inadequate funding for research
2. Establishment of Research Baseline

Recommendations

- An autonomous CoE, linked to the UNRA structure, required to undertake and coordinate research
- CoE to include information centre, laboratory facilities, and training facilities
- Need for focused policy to ensure the active and managed dissemination of research outputs to gain the most value for the investment made
- Proficiency assessment of condition of labs across Uganda
- Develop roadmap for the accreditation of these labs to ensure that they generate good research data
3. Strategic Partnerships

- The identification and establishment of strategic partnerships was a key priority for the Department

- Purpose
  - To bridge established resource gaps
  - To leverage competencies and best practice
  - To create an ecosystem that supports research activities in Uganda
3. Strategic Partnerships

- National:
  - Ministry of Works and Transport (inc. MELTC)
  - Ministry of Local Government (Districts)
  - The National Council of Science and Technology
  - Academia (Makerere, Ndejje, Kyambogo Universities)
  - KCCA
  - Uganda Road Fund
  - Uganda Institution of Professional Engineers
3. Strategic Partnerships

- **International:**
  - Centre for Scientific and Industrial Research (CSIR)
  - University of Birmingham
  - Research for Community Access Partnership (RECAP)
  - Transportation Research Board (Committees)
  - Africa Road and Transport Research Forum (ARTReF)*
  - Sustainable Mobility for All Initiative (SUM4All)*
  - International Road Federation
  - IIT Delhi

More under formalisation
Next Steps

▪ Way forward to be informed by a comprehensive Research Framework and Business Plan

▪ Framework and Business Plan will include short-, medium-, and long-term research initiatives, and the resources estimates

▪ Continuous capacity building:
  – Acquisition, training, mentorship, and retention of staff
  – Establishing research/ reference laboratory

▪ Collaborative research with reputable international researchers/ Institutions
Challenges and Opportunities

1. Growing challenges in the delivery & maintenance of infrastructure, and services

2. Enthused stakeholders

3. Local capacity

4. Institutional harmonisation and coordination

5. Sustainable financing
Thank you for your attention

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