

The Africa Community Access Programme (AFCAP)

Overview of AFCAP.....and a Vision for the Future

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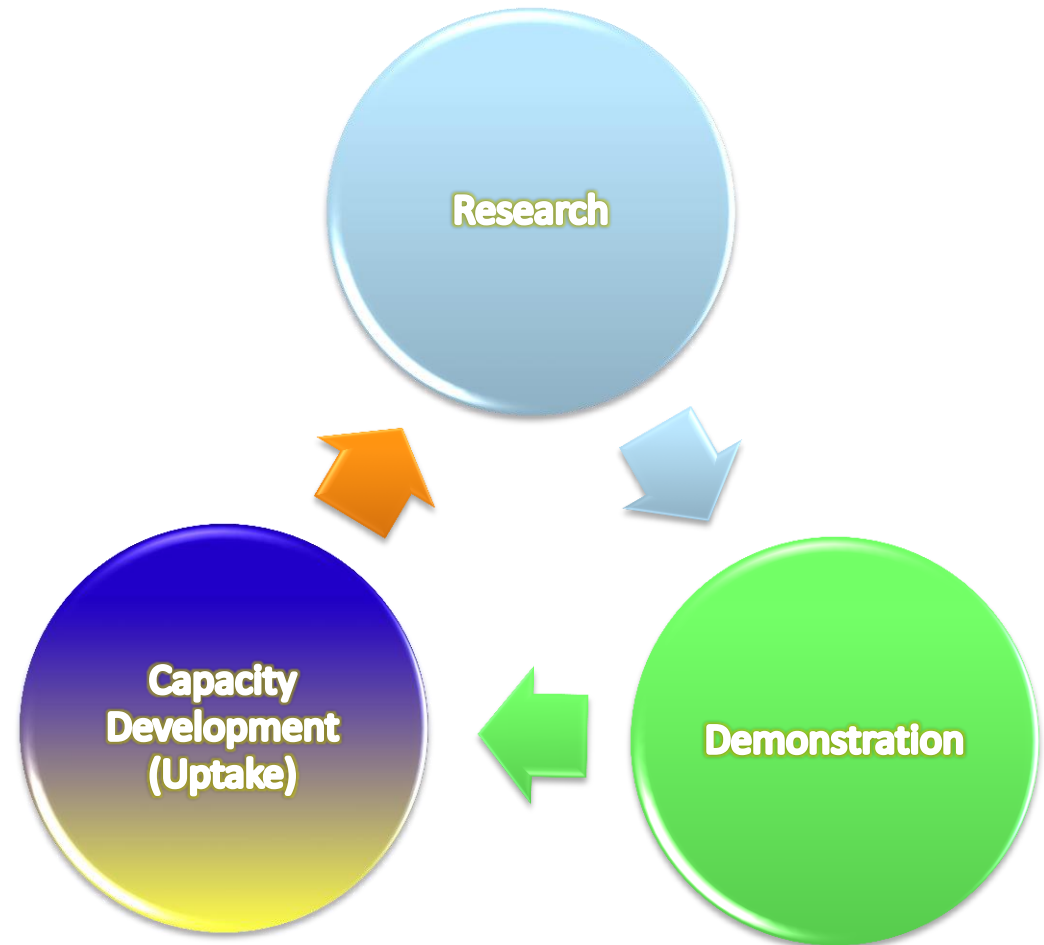
19th June 2014

AFCAP



What is AFCAP?

- Knowledge and research programme for the rural transport sector in Africa.
- June 2008 to 2014
- Core countries: Mozambique, Ethiopia, Malawi, Tanzania, Kenya, South Sudan, DRC.
- Also projects in SA, Zambia, Ghana, Nigeria and SADC.
- Crown Agents management contract.
- DFID budget £14.4 million (low cost high impact).
- AFCAP 2 approved by DFID, includes also ASCAP. Budget £24.2 million, 2014 - 2020



Project Conception & Implementation – Key Principles

Host Institution in-country

- ✓ In-built local ownership and buy-in
- ✓ Funding of capital works

AFCAP National Steering Committee

- ✓ Membership: (RDA, ZRF, MoW, others)
- ✓ Identification and prioritisation of projects
- ✓ Approval of ToR
- ✓ Oversight of implementation of projects (site visits, approval of reports, SC meetings to review progress, etc)

AFCAP Support

- ✓ Development of ToR for prioritised projects
- ✓ Procurement of required expertise based on approved ToR
- ✓ 100% funding for technical assistance, training, equipment
- ✓ Oversight during implementation of projects

Does the project have strong local ownership?

Does the project include mainly research or uptake of best practice?

Will the project contribute to building national or regional capacity?

Will the project contribute to sustainable improvements to rural transport?

Engineering

- Research on innovative design methodologies, application of unconventional locally-available materials in pavements, and for surfacing
- Back-Analysis of old LVSRs
- Design, Construction and Monitoring of Demonstration Sites
- Study on Improved Maintenance Systems
- Establishment of Road Research Centres, procurement of lab equipment
- Preparation of Design Manuals for LVR
- Capacity Building

Transport Services (including Road Safety)

- Study on Causes of Rural Motorcycle Accidents on LVR
- Study on Rural Transport Indicators
- Study on Rural Transport Services for Older People

Related Rural Roads Programmes

- EU-funded Rural Roads & Capacity Building Programmes
- DfID-funded Rural Roads Programme
- JICA TA Programmes
- World Bank support programmes

Research- Knowledge Generated

1. Use of non-standard materials in upper pavement layers (LVSRs)

- Unstabilised sands
- Calcrete
- Laterites



2. Alternative surfacings

- Cold mix asphalt
- Otta Seals (fine quartz gravels, calcrete, weathered basalt, cinder gravel).



Through:

- Back-analysis of existing pavements
- Construction and long-term monitoring of experimental and demonstration sections

Use of Sand in Road Construction



**Hoopstad-Bultfontein Experimental Section (1962):
Neat sand base
Potential Saving: >\$50,000 per km (cement)
for countries like Mozambique**



Research- Knowledge Generated

How transport services operate in rural areas:

- For the aged
- For people needing emergency medical care
- Small farmers
- Using motorcycle taxis.



Demonstration of Best Practice



Unstabilised laterite road bases



Thin cold mix asphalt



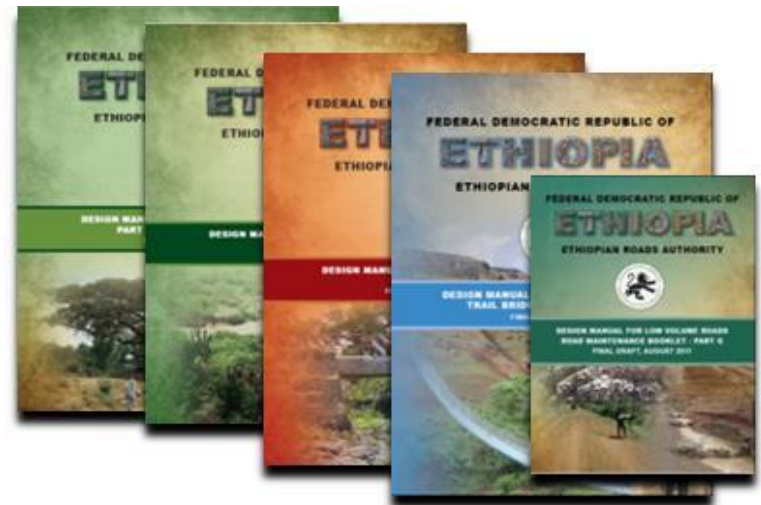
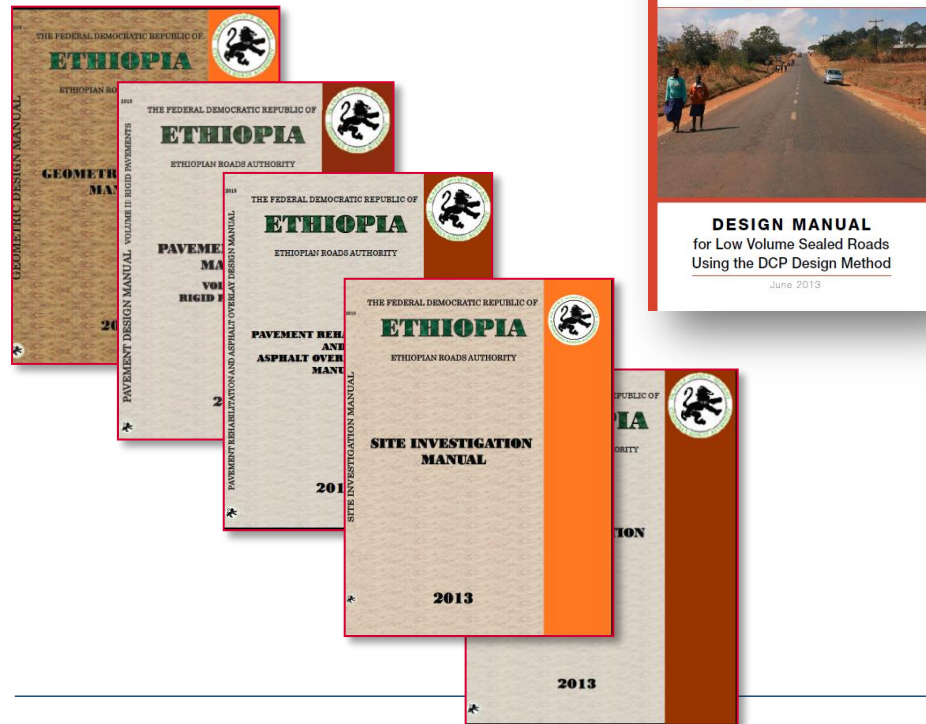
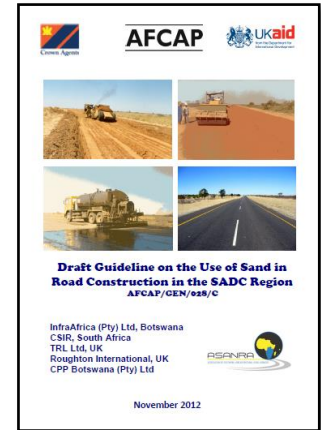
Environmentally Optimised Design

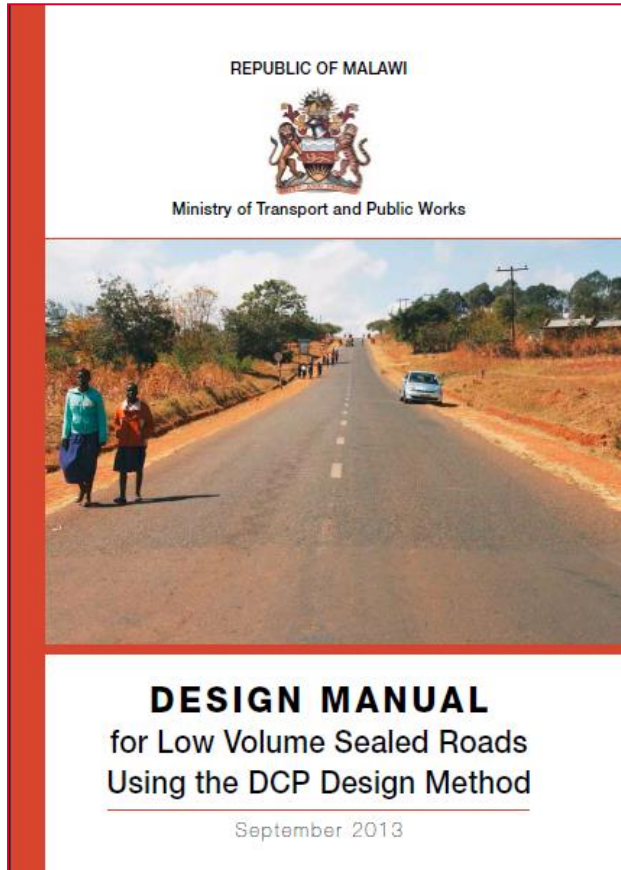


Knowledge sharing

Uptake of Knowledge

New knowledge must be brought into practice by updating design manuals, Standard Specifications etc.

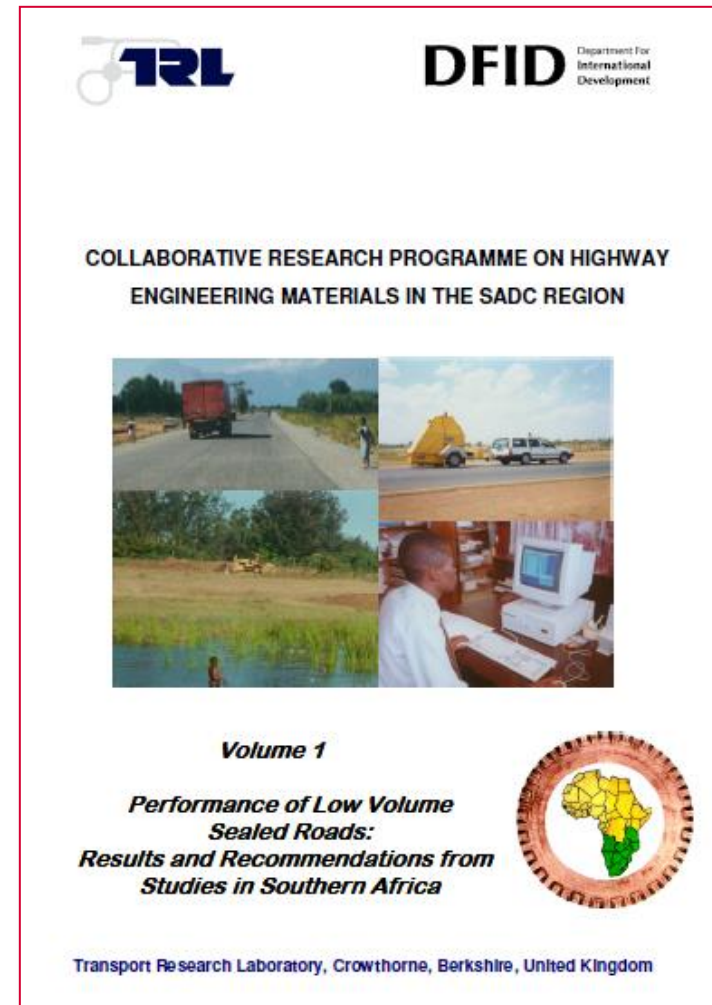




- Builds on pioneering work done in RSA (and Australia)
- Calibrated DCP catalogue for Malawi conditions
- Reduced reliance on conventional testing
- Supports an existing design approach
- Malawi plans to construct 100km LVSRs annually
- Also for design of LVSRs in Kenya, Tanzania and DRC.
- Training conducted in Kenya, Tanzania and Mozambique (planned)


LVR Design Manuals -Ethiopia

- Published in 2011 for Universal Rural Roads Access Programme
- 70,000km gravel roads over 5 years
- Includes design catalogue for low volume sealed roads from 1990s research.




TRL **DFID** Department For International Development

COLLABORATIVE RESEARCH PROGRAMME ON HIGHWAY ENGINEERING MATERIALS IN THE SADC REGION



Volume 1

**Performance of Low Volume Sealed Roads:
Results and Recommendations from
Studies in Southern Africa**



Transport Research Laboratory, Crowthorne, Berkshire, United Kingdom

Independent review findings:

- About 7,000 individuals in 2,000 organisations using manual.
- 3,600 professionals trained in LVR design using the Manual
- 28,000km upgraded to gravel all weather standard.
- 170km sealed roads designed through 15 villages.



AFCAP supporting development of research centres for rural transport in:

- Ethiopia
- Mozambique
- Kenya
- South Sudan
- Tanzania



- **Contributed to the attainment of new knowledge**
- **Bridging the knowledge gap between countries**
- **Enabled the uptake of knowledge (new and existing) with benefits for local communities**
- **Demonstrated the value of research**
- **Created awareness of the need for more in-country research.**

Vision

“Vibrant research community for the rural transport sector in Africa”

www.afcap.org

Research & Uptake

- Continue with research activities, consolidation and search for new knowledge, systematic monitoring of trial sections
- Embed research knowledge into national standards, manuals and specifications

Strengthen Capacity Building

- Provide support to centres of research excellence
- Develop and implement structured programme of training and mentoring of African researchers

Knowledge Management

- Develop sustainable and easily accessible knowledge portals linked to rural road and transport services research
- Disseminate and mainstream best practice and evidence in rural LVR and transport services