

BUILDING ROADS WITH RESEARCH



A seemingly simple road in a rural area is a lifeline for local people; for trade and for mobility; for access to services of education and health. Thus safer and more reliable transport is a crucial step on the path of development. In response, DFID funded the Africa Community Access Programme to roll out research programmes in 7 core countries. The aim was to understand the complex needs of rural populations and show how their road networks could be more effectively expanded, managed and maintained. As well as providing better access to social services and employment opportunities, the research also seeks to reduce accident rates. The programme has found ways to work with governments and other partners so that findings are adopted, unlocking potential for improvements and savings.

AFCAP

The Africa Community Access Programme (AFCAP) is about improving low traffic rural roads and transport services. It conducts research on road design standards and maintenance, producing technical advice documents. This research includes both analyses of old roads built to unconventional standards and, with partner governments' funds, construction of new 'trial sections'.

As a result of AFCAP, more robust methods for monitoring road performance have been developed. Evidence has been produced that durable roads can be built more cheaply than by applying conventional standards. Costs could be reduced by between a half and two-thirds, depending on local circumstances.

However compelling, by themselves these outputs may not have made much difference. Early in the programme, **AFCAP recognised that new knowledge and standards would be used widely only if endorsed by governments.** So it actively sought engagement, for example through match funding. Formal agreements were reached with the governments of Ethiopia, Kenya, Malawi, Mozambique, Tanzania, South Sudan and DR Congo.

Although the agreement and adoption process can seem lengthy, approved road construction and maintenance manuals are now in place in Malawi, South Sudan and Ethiopia; where AFCAP manuals had been used to build 28,000km of new rural roads by August 2013. Upgrading just 74km of paved road using the standards has already saved an estimated £13.7m compared to conventional methods.

In one instance in Malawi, a trial section of road from the 1980s using cheaper laterite gravel was found to be just as effective as conventional crushed stone and a new manual has been prepared.

Potential Impacts

Improving a third of the road network

By 2020, AFCAP is on track to have influence on 130,000km of road – or about 30% of the entire road network in the participating countries.

Big Savings

Using AFCAP's design approach to construct low volume sealed roads may save up to £490m in Kenya and £10m in Malawi.

Understanding Usage

AFCAP's engineering focus is complemented increasingly by transport services research into the needs of rural communities for access to health care, markets and education. This highlights the needs of women, as well as of minority groups and illuminates exactly who is benefitting from such projects.

AFCAP has also worked to develop safety manuals relating to Tanzania's thriving *boda-boda* (motorcycle taxi) sector, Whilst providing useful transport and livelihoods in rural areas, they are involved in a high number of crashes. Further work, however, is needed, before these are widely adopted.

Continuing Development

Finally, AFCAP fully recognises the importance of learning and building capacity to undertake this type of programme. It facilitates knowledge-sharing between and within the participating countries. A Community of Practice links practitioners via mailings, conferences, workshops and training courses. Perhaps most crucial and challenging, AFCAP seeks to help establish national research programmes which can sustain this work long term.

The AFCAP strongly believes that it has succeeded in demonstrating the value of research if the message is received by senior policy-makers".¹

AFCAP is managed by Crown Agents and funded by DFID (£13 million) and participating African Governments and their development partners (£12 million). It was started in June 2008 and is scheduled to end in June 2014.

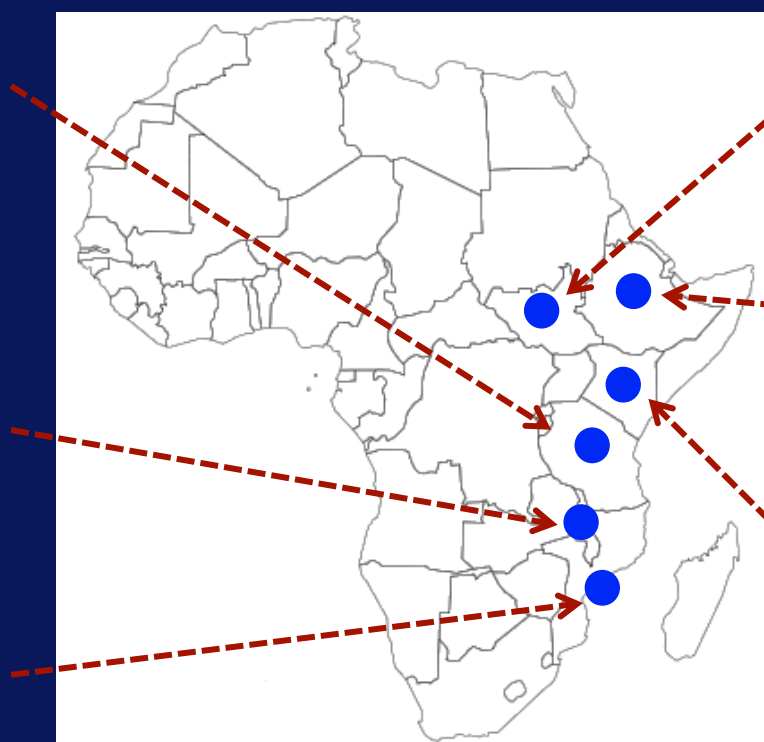
All road construction is funded by partner governments to increase 'ownership' of the project, aiding capacity building.

Country Outcomes and Impacts

Tanzania: Once adopted by the government, a new guidance manual will influence maintenance of a 58,000km district road network.

Malawi: The adoption of the low volume sealed roads approach could save more than £10 million on the construction of 60km of roads.

Mozambique is to invest £39 million in 2013/14 to seal 280km low volume roads.



South Sudan: manuals prepared through AFCAP will inform the reopening of roads and improvements to the network.

Ethiopia: new government - approved manuals will be used to improve 60,000km of rural roads by 2015.

Kenya Kenya aims to upgrade 8,000km of gravel rural roads to paved road standard by 2018. This will only be possible by using cost effective design standards promoted by AFCAP.

For Further Information and Contact:

Key Websites

<http://afcap.org/SitePages/Home.aspx>

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¹All data drawn from the AFCAP Outcomes and Impacts Report, DFID, May 2013.
Images: AFCAP Team