WHY THIS RESEARCH NOW?

From 2017-2021, IMC Worldwide will manage the DFID High-Volume Transport applied research programme along national and regional transport corridors and within cities in low-income countries in Africa and South Asia.

Transport plays a key role in reducing isolation and poverty, and in facilitating economic activity. Strong transport links can facilitate international trade transitions, which, under appropriate circumstances, boost national income, reduce poverty, and contribute to economic and social development.

The transport sector in low income countries is a very large recipient of aid and public funds for investment because it is fundamental to economic development. Research activity is minimal, and the evidence base for huge investment decisions is out of date and often inadequately specific to requirements.

This research will update technical best practice for transport infrastructure in LICs and actively disseminate it to LIC country authorities so that it is understood and used. This will allow more cost effective and cleaner technical designs of infrastructure investments. This means that decision-making process for the selection of projects is better informed and ensures impact on economic development and poverty reduction.

This programme will improve the design of transport infrastructure in every DFID focus country and beyond. Each 1 percent gain on the cost effectiveness of transport infrastructure is worth potentially US$1billion per annum in Africa: more than that in the future.

In this context, high-volume transport covers road and rail networks from passenger and freight perspectives. It will expand and develop new technologies and solutions and will learn from and adapt existing transport technologies, materials, designs, planning and methods from high and middle-income countries. It will also seek long-term partnerships with research institutes, universities, private sector, foundations and government.

The programme will include up to £14 million for research, capacity building and knowledge management/research uptake activities and implementation will be managed through a Project Management Unit (PMU).

PROGRAMME STRUCTURE

The programme consists of two parts. Part 1, lasting for 15 months, will involve a review of the literature and evidence available and deliver a series of state-of-knowledge papers on the four research themes.

Part 1 will confirm the focus and scope of the research that will be used to identify future primary research that may be undertaken in Part 2. The PMU will prepare a research plan for Part 2 based on the outcomes of Part 1.

The PMU will procure and supervise research activities including research contract management, and will facilitate capacity building and knowledge management.

4 RESEARCH THEMES

Long Distance Strategic Road and Rail Transport
Limited research specific to strategic road and rail transport networks in LICs exist, despite large investments by national governments, donors and development banks in transport infrastructure programmes. Many African and Asian countries apply standards and specifications for road and rail infrastructure that are out of date and do not take account of advances in knowledge and evidence leading to costly over- or under-design.

Climate change is already threatening vital infrastructure. Meeting the increasing demand for transport infrastructure investment comes with an increasing need to invest in asset maintenance. This theme considers the increasing volume of transport infrastructure assets and maintenance costs, and examines maintenance systems,
dynamics, tools and methods that could be used in low-income countries in Africa and South Asia.

**Urban Transport.** Many LICs continue to experience rapid urbanisation. Effective transport systems provide access to the workplace, markets, education, healthcare and recreational facilities which can enable and support human and economic development. This theme focuses on harnessing the economic development of towns and cities through strong accessible urban transport planning, design, implementation and maintenance.

**Low Carbon Transport.** Transportation accounts for about 20% of world CO2 emissions. High-volume transport is a key sector to focus on to help mitigate climate change. This theme includes technological and other solutions that promote low-carbon transport solutions including non-motorised transport options.

**Gender, Vulnerable Groups and Inclusion in High Volume Transport.** Women may be adversely affected by high volume transport as they tend to make more frequent short journeys during off-peak hours and have less access to private transport. Women and children can be vulnerable to harassment on public transport, while poor siting of bus stops and termini can increase dangers for women, children and other vulnerable groups. This theme examines opportunities that safe, secure and affordable transport provides for women, children and other vulnerable groups in the context of transport corridors and urban transport situations and captures research on road safety.

**RECIPIENTS**
The recipients of the services are relevant transport decision takers and development policy makers, central and local government transport practitioners, private sector, civil society and other relevant stakeholders in these countries.

**PRIMARY ACTIVITIES**
- **Research:** Generation, validation and updating of evidence for effective policies and practices on high volume transport in each research thematic area
- **Capacity development:** The enhancement of African and Asian capacity on high volume transport in each research thematic area
- **Knowledge management:** Improved understanding of high volume transport across each theme area, and enhancement of knowledge management, lesson learning and dissemination

**INTENDED OUTCOMES FOR LOW INCOME COUNTRIES IN AFRICA AND SOUTH ASIA**
- **Increased access to transport services,** more affordable trade routes and safer, lower carbon transport
- **Evidence base strengthened** on the most strategic and cost effective, safer and lower carbon passenger and freight transport investments and services
- **Support to international poverty reduction** by contributing to inclusive economic growth, and supporting the uptake of low carbon transport strategies to reduce greenhouse gas emissions and that high volume transport infrastructure is resilient to stresses of climate change

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