Packham, K. Baxter, W. A project summary leaflet produced by the AfTR-CC Project, University of Birmingham. Funding provided by FCDO for the HVT Applied Research Programme.
https://tinyurl.com/AfTRCC

Adaptation for Transport Resilience

to Climate Change for LICs in Africa and South Asia

AIM: This project intends to assist public and private providers of transport in low-income countries (LICs) in Africa and South Asia to increase the resilience of road, rail and urban transport infrastructure and services to climate change.
OBJECTIVES: (i) Produce a State of Knowledge report undertaking a literature review, capability assessments of policy and relevant tools and frameworks, interviews with transport stakeholders in Africa and South Asia; (ii) conduct workshops with stakeholders to receive feedback on research activities; (iii) produce a policy guide for decision-makers in LICs that promotes the needs and benefits of climate-resilient transport infrastructure and services, provides a policy framework and strategic approaches to do so, and supports building of institutional skills and capacity, including accessing and mobilising available finance.

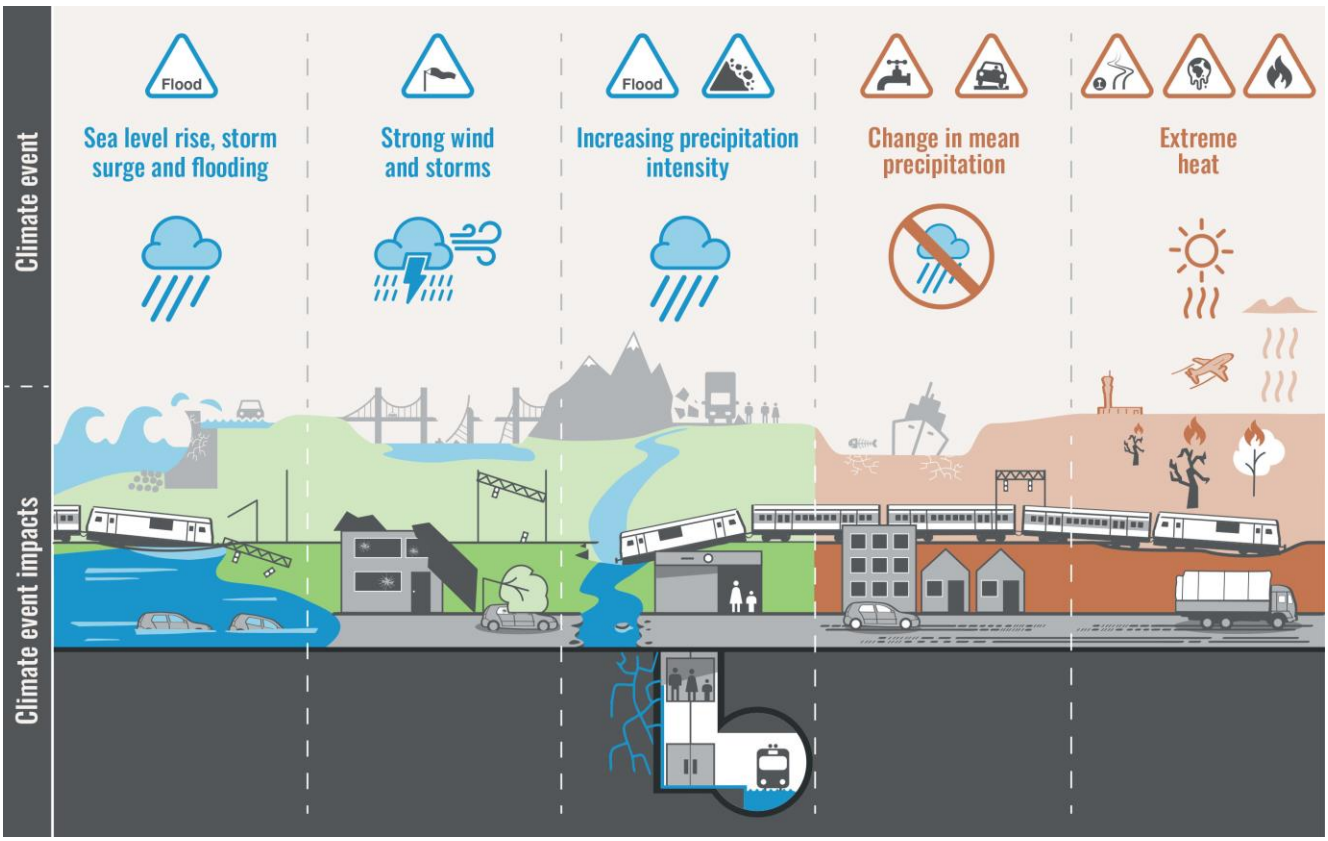
CLIMATE CHANGE IN AFRICA AND SOUTH ASIA

LICs in Africa and South Asia are likely to experience more **severe consequences** of climate change relative to other parts of the world. The evidence, notably from the last decade, shows that **climate change is already occurring** in these regions, and there is an increase in the damage caused by weather extremes leading to flooding and drought. Climate projections for these regions point to a major risk caused by **variability in precipitation** intensity and shifts in seasonality. Climate change impacts to transport are shown in the infographic below.

ASSESSMENT OF TOOLS AND FRAMEWORKS

Thirty-five tools and frameworks related to transport and/or climate change were evaluated using a multi-criteria analysis that scored against six criteria relevant for LICs with transport stakeholders. Key findings include:

- It is difficult to choose the **most appropriate tool**.
- Better tools **do not support all parts** of adaptation planning.
- There are some good tools designed for local-scale use, but these **need skilled users at the local level**.
- Well-designed tools may not be suited to LIC's **knowledge or technical capacities**.



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ASSESSMENT OF POLICIES

Eighteen national adaptation plans and national adaptation plans of action from low- and low-middle income countries (LMICs) in Africa and South Asia, available in English, were evaluated using a multi-criteria analysis that scored against five criteria from ISO 14090 *Adaptation to climate change – Principles, requirements and guidelines*, Clauses 6 to 10. Findings include:

- The documents generally **improve in quality over time** (submission year).
- There is a mixed level of focus on transport adaptation – many **do not discuss transport** in detail.
- There is **competency at a national scale**, and sometimes regional scale, in understanding climate change impacts.
- Adaptation planning **includes some stakeholder engagement**, often including options analyses and robust methodologies to prioritise options.
- There is **varying competency** in translating into implementation plans and in the processes used to monitor and evaluate progress in adaptation.

STAKEHOLDER INTERVIEWS

Thirteen transport stakeholder interviews were conducted during summer 2021 (infrastructure practitioners, ministries of environment, urban planning/transit authorities) with LICs and LMICS across Africa and South Asia. Findings include:

- Climate awareness in stakeholder organisations is **still in its infancy** – monitoring the impacts of weather/climate on transport infrastructure is not business as usual (see pie chart below).
- The **impacts of flooding** are most recognised as a concern and many stakeholders refer to impacts such as bridge/road washouts and drainage issues being most problematic.
- Most infrastructure is built to design specifications, but these **specifications are often outdated** or being updated to incorporate future climate.
- **Funding and resources are insufficient** – transport stakeholders are often chasing maintenance funds, which are increasing year-on-year, and cannot look ahead to adaptation with their current resources.

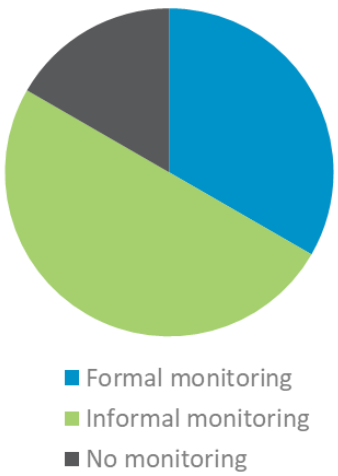
CHALLENGES, BARRIERS AND HOW TO FACILITATE ADAPTATION?

Challenges and barriers to improving transport resilience to climate change include:

- **Lack of knowledge** because the appropriate knowledge or data (e.g. weather, climate, transport data) is not in the right place or of the right scale.
- **Lack of options** because there is missing information, or not all stakeholders were consulted, including local communities and women.
- **Failure to act** because there is low stakeholder buy-in to act or not enough accountability taken by national leaders.
- **Insufficient funds** because there are difficulties in accessing or diversifying funds in order to implement plans.

Therefore, facilitating transport resilience in LICs across Africa and South Asia requires support and guidance in order to:

- **Better coordinate government** by streamlining national and local government communication, including across sectors that link to transport.
- **Build capacity** by signposting where to increase climate knowledge and access to climate and transport data; increase financial knowledge; and streamlining processes in climate change adaptation and disaster risk reduction departments.
- **Full stakeholder engagement** – including local communities and the private sector.



WANT TO LEARN MORE?

We invite feedback on the project research activities in order to finalise the policy guide, which will be submitted in **December 2021**. Please scan the adjacent QR codes to view our presentation on the AfTR-CC project or to provide your perspective or information via our online questionnaire.

Presentation

Questionnaire

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Greenham, SV. Ferranti, EJS. Quinn, AD. Workman, R. McPherson, K. Dora, J. Street, R. Packham, K. Baxter, W. A project summary leaflet produced by the AfTR-CC Project, University of Birmingham. Funding provided by FCDO for the HVT Applied Research Programme.
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