Urban Flood Risk Management & Transfer Feasibility Study

Terms of Reference

October 2020

1 Introduction

FSD Africa wishes to contract a reputable consulting firm, individual consultant or consortium ("the Consultant") for a feasibility assessment and the development of a basic project concept for urban flood risk management and transfer.

The assignment and its deliverables are critical input to our decision process whether and how to further develop and implement a future project on urban resilience.

2 Background

Floods have caused the majority of disaster events in Africa and have affected 72 urban areas since the year 2000. The largest 143 cities in Sub-Saharan Africa have a population of almost 500 million people and generate 50% of SSA's gross domestic product (GDP). Urban disasters not only affect urban populations, but also rural communities that depend on them as markets for their produce or as remittance senders.

Urban resilience contributes to sustainable development through the avoidance of losses, de-risking investment to unlock economic potential, and by generating development benefits through risk mitigation and management. However, city governments and administrations in Africa lack the expertise and resources to develop, fund and implement resilience strategies and measures. This leaves cities and their populations and businesses exposed to the negative impact of disasters and inhibits recovery from them.

The insurance and risk management sector has expertise and capacity that could support cities in overcoming these challenges:

- **Risk Transfer:** Insurance pools risks from diverse cities and across various types of risk and thus enables insurance pay-outs that can be used to invest in recovery and restitution.
- **Risk Management:** The generation and analysis of qualitative and quantitative risk data and information enables decisions on risk mitigating measures and the pricing of insurance products. Reliable and transparent data also enables commercial contracts between stakeholders that jointly underwrite risk protection or manage risk mitigation.
- **Resilient Assets:** Underwriters mobilise and pool insurance premiums that are allocated to investments in infrastructure and other public or private assets. Their investment criteria can incentivise improved resilience, e.g. by requiring flood protection or other risk management.

However, the business model for underwriting urban infrastructure, households and businesses in Africa is currently unsustainable. Inadequate physical measures to mitigate risk or adapt to it exacerbate losses from natural disasters. As a result, insurers have to price risks conservatively or simply deem such risks uninsurable. This leaves governments, households and businesses without loss protection and it also discourages sustainable investment in public and private infrastructure.

The following critical constraints have been discussed by a group of interested insurance stakeholders[1] since 2019:

- **Lack of understanding of risk management & transfer options:** Governments, businesses and households do not have the technical and financial expertise to analyse risks related to climate disasters. As a result, there is insufficient demand for risk transfer products and only inadequate investments in mitigation. This also inhibits product innovation and commercial scale of risk transfer products.
- **Inadequate collaboration structures:** Individual stakeholders find it difficult to develop or access effective risk transfer solutions or to invest in risk management on their own. This is the result of an absence of effective collaboration structures that would enable collaboration and knowledge-sharing.
- **Fragmented data and risk models:** The available data and models[2] for climate risks in Africa are difficult to access or highly fragmented (i.e. available only for very specific risks or locations). Underwriters and the public sector (e.g. city governments) do not have the capacity to generate data and develop models on their own.

FSD Africa is a specialist development agency (funded by UK aid from the UK government) working to build and strengthen financial markets across sub-Saharan Africa. We apply a 'market systems development' approach, which means we aim to address the structural, underlying causes of poverty by improving how financial market systems function. Through this, we aim to spark large-scale and long-term change. We work alongside governments, business leaders, non-profit organizations, research institutions, regulators, and policymakers to develop more inclusive financial systems using a range of approaches and tools. We believe that financial systems have the potential to play a major role in enabling inclusive growth and ensuring access to basic services while assuring a sustainable future.

Since 2020, FSD Africa is committed to a new strategic approach which re-orients financial sector development towards much greater real and social sector impact to support the achievement of the SDGs. We pursue the following real and social sector outcomes: (1) access to basic services, (2) new and protected jobs, and (3) a sustainable future. The latter includes our ambition to positively impact how Africa mitigates and adapts to climate change.

As part of our new strategic approach, we have established a dedicated programme and related technical team to address risk management & transfer (insurance) in Africa. The technical team

[1] including African Risk Capacity (ARC), AfricaRe, ContinentalRe, FSD Africa, NamibRe, Santam, Oasis Loss Modelling Framework, Organisation of Eastern and Southern Africa Insurers (OESAI), Stellenbosch Business School, ClimateWise, University of Cape Town, and others

[2] For-profit companies offer proprietary catastrophe risk models at high costs, but these are often insufficiently tailored for Africa. This presents a barrier to the use of such models by African insurers, reinsurers, governments and non-profit institutions.

prioritises urban resilience because of the above-mentioned background and existing momentum among key stakeholders. It also prioritises risk management and transfer for urban floods and aims to decide on a dedicated project on urban flood resilience for the 2021/22 business period.

3 Objective

The objective of this assignment is to clarify key aspects of the rationale and design of a potential urban resilience project of FSD Africa.

The assignment has two specific objectives:

Objective 1: To develop options and approaches, and assess their feasibility, for the creation of effective public-private collaboration platforms that would enable improvements and transactions of risk management and transfer solutions for urban flood risk in the selected city/cities

Objective 2: To determine the scope, accessibility and relevance of existing data sets and risk models on urban flood risk in the selected city/cities; and to recommend interventions and investments that would improve the quality and relevance of data set and risk models

4 Scope of work

The assignment shall cover the city of Lagos (Nigeria).

The Consultant shall carry out at least the following activities. The Consultant's proposal shall reference and discuss these work aspects and may propose revised or additional activities and deliverables.

Work Stream 1 (for Objective 1):

- Research, document and assess the public and private sector stakeholders that are relevant to risk management & transfer for flood risk
- Assess the level of interest, technical capacity and resources of the relevant stakeholders to actively engage in and contribute to flood risk management and transfer
- Research, document and assess the existing and, if any, failed strategies to manage and transfer flood risk in the cities
- Identify and analyse barriers that currently inhibit the establishment and/or operation of collaboration platform for urban (flood) risk management and transfer, and recommend
- Identify, describe and prioritise key initiatives that the collaboration platform should pursue for effective and sustainable flood risk management & transfer, at least including initiatives related to
    - Investments in risk and loss mitigation,
    - Risk transfer products and related underwriting partnerships
    - (Public-private) partnerships to achieve scale and (commercial) sustainability

- Recommend key interventions and basic project design for FSD Africa's further support to flood risk management and transfer, at least including an outline of the objectives, workstreams and key project partners (also taking into account outputs of Work Stream 2)

Work Stream 2 (for Objective 2):

- Research and assess available data, with a particular view to its relevance for flood risk management and transfer. This includes the following data types:
    - Exposure data that quantitatively, qualitatively and geographically (location) describes populations, infrastructure, buildings and productive or social assets. This shall consider residential, commercial, industrial, agricultural, social and other public infrastructure. Particular attention shall be paid to the granularity/resolution of this data, considering that floods can be highly localised events.
    - Hazard data that describes the extent, location, intensity, severity and frequency of events that cause flooding. This should consider natural and human-induced hazards (e.g. inadequate drainage systems, insufficient land management, etc.) and the interaction between them.
    - Vulnerability data describes the ability of populations, businesses, social and physical infrastructure and public sector stakeholders & governments to cope with the financial loss caused by disasters and other events. This data includes information on skills and resources to prevent risks as well mitigate the impact of disasters.
- Research and assess available risk models for urban flooding, in particular models that determine financial losses over a specific time period (e.g. annually) and that could inform a commercial risk transfer contract or a commercial risk mitigation investment.
- Specify gaps or other inadequacies in data and models that inhibit reliable and relevant application of the data and models in designing and implementing risk management and transfer interventions
- Benchmark the data and models against data and models used in other cities with more advanced urban flood risk management and transfer systems
- Assess constraints in expertise, resources, policy or regulation that would inhibit the usage of data and models for the design and operations of risk management and transfer
- Engage key local, regional and international stakeholders in the public and private sector regarding potential interventions and partnerships to improve data and models, and summarise the discussions
- Recommend key interventions by FSD Africa to support further development and/or usage of data and models for the risk management & transfer initiatives (also taking into account outputs of Work Stream 1)

5 Deliverable and timelines

Deliverable	Due Date (from project inception)
0. Inception report (detailed workplan, detailed research questions, etc.)	1 week
1. Stakeholder Map & Analysis	5 weeks
2. Analysis of current and previous strategies & initiatives	8 weeks
3. Overview and assessment of available data	8 weeks
4. Overview and assessment of available risk models	10 weeks
5. Comparison and gap analysis with data and models in other cities	10 weeks
6. Recommended design and initiatives of the collaboration platform	12 weeks
7. Options and recommendations for interventions and partnerships to improve data and models	14 weeks
8. Recommendations for key initiatives and basic project design of FSD Africa's further support to flood risk management	16 weeks

These deliverables shall be in Microsoft Word (min. 25 pages) or Powerpoint format (min. 40 slides) and the final report should combine all deliverables in one file.

6 Logistics and Reporting

Due to the ongoing pandemic and subsequent travel restrictions, most of the work needs to be carried out remotely. However, the proposal and workplan of the Consultant shall provide for at least one visit to Lagos (Nigeria) for stakeholder meetings and research. FSD Africa will decide at an appropriate time whether to approve this travel or not. We expect the Consultant to achieve all deliverables also without travel.

The consultant will report to the Assistant Director (Risk) of FSD Africa.

7 Invitation to Tender

Proposals are invited from suitably qualified consultants (individuals, firms, consortiums).

The proposal should contain:

- A description of the Consultant's understanding of the objective of the assignment as outlined in these terms of reference and their role in fulfilling this objective;
- A description of the Consultant's proposed approach to undertaking the work, including any suggestions on how to vary or supplement the above-mentioned scope of work and deliverables in order to ensure successful completion of the consultancy;

- A profile of the team lead and other key team members that will undertake the work, including explanation of their specific roles and responsibilities in relation to the assignment. This description should be supported by tailored CVs (in an annex, no more than 3 pages per CV);
- A short summary of relevant experience (tailored to the assignment) and referrals for similar work done in the last three years;
- An itemized activity-based budget for both professional fees and reimbursable expenses. The budget should include all applicable taxes.

Proposals should be submitted to the Assistant Director (Risk) of FSD Africa by email (thomas@fsdafrica.org) by close of business on 30 October 2020.

Note: As per Kenya's tax law, FSD Africa will pay the Consultant after deducting the appropriate withholding taxes at the applicable rate between Kenya and the Consultant's country of tax residence, considering any tax treaties in force. It is the responsibility of the Consultant to keep themselves apprised of these applicable taxes.

8 Basis of Award

A contract will be awarded to the most economically advantageous tender based on the following mandatory qualifications and assessment criteria:

Mandatory Qualifications

- Understanding of the current state of knowledge and practice in disaster risk finance or insurance (specific experience in urban flooding is an advantage)
- Expertise in consulting within the field of disaster risk finance or insurance, evidenced by successfully completing relevant assignments within the last three years
- Experience working on market or product development, product/service management, strategy consulting, or other relevant activities in the financial system of emerging economies

Assessment Criteria

- Relevant technical capacity and qualifications (20%)
- Demonstrated ability and experience to deliver in the work area outlined in this Terms of Reference (evidenced by previous assignments, client references, publications, etc.) (40%)
- Quality of the proposal in response to the Terms of Reference (understanding, approach to the assignment, originality, relevance) (25%)
- Value for money (based on fee rates, inputs and total cost of the assignment) (15%)

9 Contact

Questions or comments in respect to these terms of reference should be directed to the Assistant Director (Risk) at thomas@fsdafrica.org

Annex 1: Background on FSD Africa

About FSD Africa

We work to reduce poverty by strengthening Africa's financial markets.

Established in 2012 and supported by UK aid, FSD Africa is a specialist development agency working to build and strengthen financial markets across sub-Saharan Africa. We work to reduce poverty through a 'market systems development' approach, which means we aim to address the structural, underlying causes of poverty by improving financial market systems so that they enable systemic real sector change.

We believe that investing in building a financial system that is transparent, stable and accessible creates the conditions for a fair and sustainable future, where inequality is reduced, corruption is tackled, and where individuals, businesses and governments alike are able to prepare for future challenges, from climate change to political instability.

From our headquarters in Nairobi, our team of financial sector experts work alongside governments, business leaders, regulators and policy makers to design and build ambitious programmes that make financial markets work better for everyone. Depending on the project, we can provide a combination of grants, investment capital, market insights or technical assistance to ensure we achieve our objectives.

We focus our work where the need is greatest, and where we believe the potential for impact is the most significant. We have a specific mandate to invest in breakthrough, innovative ideas that we believe can have a transformative impact. By sharing risk with our partners, we're able to address more difficult, persistent, or higher-risk challenges, in more unstable or fragile geographies, than traditional development finance organisations.

Please find more details about FSD Africa on our website at www.fsdafrica.org.

About FSD Africa's 2020-25 Strategy ("FSD Africa III") and FSD 2.0

FSD Africa III (2020-25) is the organisation's third strategic plan. The UK Government's Department for International Development (DFID) approved a new funding package to support its delivery in December 2019. DFID also provided new funding to eight other existing financial sector deepening programmes or 'FSDs', as well as four new FSD structures. This portfolio falls under a broader approach known as 'FSD 2.0'.

Both FSD Africa III and FSD 2.0 recognise that financial sector development in Africa faces new challenges, and that a fresh approach is required to lock in and accelerate the gains of the previous cycle. This fresh approach has three main pivots: operational, geographic and developmental.

A new impact narrative

To strengthen FSD Africa and the wider FSD Network's impact, existing theories of change will be recast to prioritise programming that focusses on jobs and incomes, access to basic services and goods, and sustainability. This shift will enable FSDs to focus on financial market building that tackles pressing development challenges in Africa (e.g. jobless growth, homelessness, climate change) as well as the global goals (e.g. the United Nation's Sustainable Development Goals). In doing so, the 'line of sight' between FSD programming and poverty reduction will become clearer.

Finance has never been an end in itself. As a result, there's a new consensus that FSD work will become systematically more sector specific. With their partners, FSDs will therefore work more intensively at the interface where finance meets important real and social sectors. Along with climate, housing, agriculture, and digital lending, healthcare is one of these high priority sectors.

Finally, FSD Africa's initial, strong progress in the long-term finance space will also be replicated by other FSDs, enabling finance to play a role in poverty reduction beyond the household and in economic transformation processes.

This is about finance that benefits poor people, not just finance for the poor.

A new geography

The FSD Network has a strong programming footprint of over 200 staff in eight country offices. And despite FSD Africa's regional reach into a total of 28 countries, even greater reach is required to fulfil a truly pan-African approach, especially in the fragile, marginalised states and communities where the need is often greatest. This is why a large proportion of the new funding will be allocated to the setup and growth of four new FSD programmes in Ethiopia, Ghana, Sierra Leone and the West African Economic and Monetary Union (WAEMU) region. DFID has also asked FSD Africa to assess the possibility of new FSD programming in North Africa and Malawi.

A new delivery mechanism

The new package delivers a step-change in the way DFID's centrally managed programming can work harder to meet Country Office objectives. The eight existing FSD programmes – each funded by separate DFID teams – will form a tighter coalition, where funding, results and policy coherence are managed from DFID's headquarters in London, but in-country DFID advisors continue to commit time to local decision-making, mainly through well-qualified independent Boards.

New FSDs (see Annex 1) will be incubated by the FSD Africa team to reduce inception timelines, a suite of shared back office services (such as measurement, communications, ICT etc.) will enable leaner and more effective management, and concessional development finance (DevCap) will be made more seamlessly available to all FSD Network members via the FSD Africa Investment team in Nairobi, Kenya. FSDs have also self-organised to enable joint decision-making and programming via a new FSD Network Council structure that will complement not compete with local Boards. A new FSD Network Directorate, located at FSD Africa will manage this new delivery mechanism.