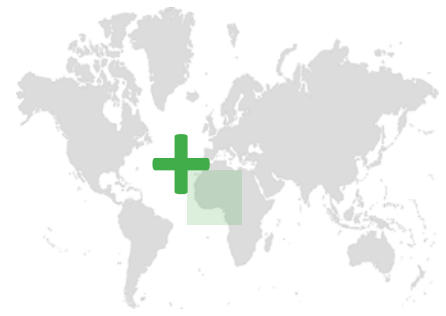


Sovereign Flood Risk Pre-Feasibility Study for Ghana – A Summary



BACKGROUND

Climate change is manifested in Ghana through extreme weather events, especially flooding. The Greater Accra Metropolitan Area (GAMA) is particularly exposed to these recurrent shocks threatening economic development and human lives. Many public assets and infrastructure are key to flood control and risk mitigation in urban areas, but at the same time can be severely affected by extreme weather events and climate risks themselves. However, in Ghana, most public assets and infrastructure are not insured. This might be due to a relatively low understanding of insurance and the unavailability of funding for premium payments.

The Public-Private Partnership “Developing Risk Management Approaches for Climate Risks” implemented by the Strategic Alliance between GIZ and Allianz Reinsurance on behalf of the German Ministry for International Cooperation and Development, therefore, prepares the ground for implementing risk transfer solutions within an integrated flood risk management approach for public assets of selected assemblies in GAMA.

Within this project, a study was commissioned to analyse the feasibility of the national government as a sole or shared risk carrier in a sovereign public asset insurance programme for Ghana. The objectives of the study were (i) to further extend the options of a risk layering approach within an integrated flood risk management in Ghana and (ii) to analyse if the proposed risk transfer mechanism by the Strategic Alliance is feasible. The findings of the study are outlined in the remainder of this brief.

On behalf of

FLOOD IMPACT CONSIDERATIONS AND DISASTER RISK MANAGEMENT IN GAMA

The study first analyses the possible role insurance can play in building urban resilience at the national level. It involves presenting the general disaster risk profile of Ghana and GAMA as well as determining the specific flood risk exposure profile of public assets.

Hazard profile in GAMA

Flooding is the major disaster challenge in the GAMA. It is so frequent that at least one major flood disaster has occurred every year over the past 10 years in Accra. The key factors that contribute to the flooding challenges of GAMA are the low-lying topography, its high levels of seasonal rainfall, and its vulnerability to coastal inundation and storm surges. Insufficient drainage networks, densification through concrete, and poor waste management aggravate the situation.^{1,2}

Public assets and infrastructure: Considerations for disaster risk and flood exposure

Public assets and infrastructure span a wide range of categories. The disposition of public assets in the assemblies, by category, is given in *Table 1*.

The utilization and effectiveness of risk transfer solutions, such as insurance, as a DRM mechanism depends on the risk profile of the assets. Asset analysis for insurance design therefore requires risk characterization of the asset categories, flood impact assessment and projection, source of funding for asset construction, and economic use in terms of revenue-generating status of assets.

The flood risk exposure profile of public assets in terms of inundation of assets from the exposure analysis shows that around a quarter of the assets experienced flooding and out of these 63% (101 out of 160) are located in the flood zone (see *Table 1*).

Table 1: Asset categories and exposure analysis

ASSET CATEGORY	EXPOSURE ANALYSIS
Education facilities	370
Culverts, drains/bridges	53
Markets or shops	52
Government offices	47
Bungalows	46
Lorry stations	30
Health facilities	30
Libraries	
Courts	
Total assets	628
Assets reporting flooding	160
Assets in the flood zone	101

This underlines the fact that there is a need for effective DRM strategies and DRF instruments to (i) decrease the risk of flooding as well as (ii) minimize the damage and associated costs if flooding could not be prevented.

DISASTER RISK FINANCE INITIATIVES AND INSTRUMENTS IN GHANA

Several initiatives are underway that directly focus on financing disaster risks in Ghana, ranging from financial services initiatives in various sectors to research programmes.

Regarding financial instruments for managing the risk of disasters, in general, they fall into three broad categories, keyed to the essential DRM functions of (i) risk reduction, (ii) risk retention, and (iii) risk transfer. In Ghana, the financial instruments used to deliver disaster risk management plans and initiatives are presented in *Table 2*.

Moreover, financing for disaster reduction comes from both domestic (including government budget and non-budget resources) and external sources, as well as from both public and private sources, with financing dispensed in both ex-ante and ex-post situations. A mix of instruments for ex-ante and ex-post protection is an essential element of an optimal risk financing strategy. *Table 2* displays the DRF instruments and their characteristics in Ghana.

Table 2: DRF instruments in Ghana

CLASS OF INSTRUMENT	EX ANTE	EX POST	PRIVATE	PUBLIC
Risk reduction				
Loans and Micro-credit				
Remittances				
Risk retention				
Government budget contingency				
Risk-Based Budgeting for DRR				
National Disaster Fund				
Risk transfer instruments				
Micro-insurance				
Agriculture insurance				
Micro-Small-Medium Enterprises insurance				
Public asset insurance				
System Insurance & Reinsurance				
Risk pools				

1 World Bank (2017). Enhancing Urban Resilience in the Greater-Accra Metropolitan Area. Government of Ghana, City Strength Resilient Cities Program.

2 Accra Metropolitan Assembly and 100 Resilient Cities (2019). Accra Resilience Strategy.

The Sovereign Public Asset Insurance Instrument

Ghana does not have a national programme for public asset insurance in place. However, a national approach to insuring public assets has several advantages, including allowing for economies of scale and diversification benefits, which could contribute to sustainability of the programme through lowering the cost of insurance.

As a first step, within this project, Allianz Re developed a tailored insurance product for three GAMA municipalities (GA East, GA West, and AMA). The DRF instrument product incorporates several elements that offers financial protection for the local governments. Namely, it entails indemnity-based flood insurance that covers the aggregated losses of all insured assets managed by a municipality that are hit by a severe single flood event. The claims pay-out includes replacement costs of insured premises, unsecured inventories. It also provides a 20% buffer for emergency relief measures, for the city authorities to support the most vulnerable. To ensure a focused product design, the scope of this insurance product was limited to the geographical boundaries of three municipalities. Altogether, this provides financial stability to the relevant stakeholders and greater freedom of action when a catastrophe strikes.

NATIONAL EXPERIENCE WITH DRF AND OPPORTUNITIES FOR DEVELOPING PUBLIC FLOOD INSURANCE PROGRAMME

Building up on the first overview of DRF instruments in Ghana, the study outlines the motivation and experience of the key stakeholders with DRF.

The study highlights that several government institutions have experience with financing disaster risk measures in Ghana. However, the only national experience with a sovereign insurance programme is – as the ARC drought insurance for the agricultural sector has so far not been purchased - in the health sector through the national health insurance scheme. Nonetheless, the study finds that the understanding among stakeholders of seeing a public asset insurance scheme as a key DRF tool in disaster prevention, response, and recovery has increased during the last years.

Opportunities for developing public assets insurance programme

The study elaborates on the following conditions that all emphasize the current opportunity for the development of a sovereign flood / public asset insurance scheme in Ghana:

- The big momentum of previous, ongoing, and planned DRF initiatives towards developing a flood insurance programme.
- The keen interest expressed by the three municipalities in piloting the insurance scheme.
- Discussions with the NIC on the possibility to form a pool of several insurance companies to cover public assets in a sovereign scheme.

- The new Insurance Bill 2020 provisions on mandatory commercial asset and public liability insurance.
- The increasing interest of insurance industry to develop the disaster insurance market in Ghana.
- The ongoing efforts of the GARID project by the World Bank to further decrease flood risks in GAMA.
- Donor's (GIZ, IFAD, AfDB, France, etc.) and insurance sector's (Allianz Re, Swiss Re) interest in supporting disaster risk insurance approaches.
- An additional new opportunity is that the National Insurance Commission (NIC) gave its green light for a Sandbox Approach of the public asset insurance developed within this project.

INSTITUTIONAL AND REGULATORY CONSIDERATIONS FOR DRF IN GHANA

DRF takes place within an institutional setting/context of roles and responsibilities of key stakeholders. The study, therefore, discusses the institutional environment for DRF in Ghana, analyses stakeholder roles and responsibilities in financing disaster risk as well as presents the following institutional responsibilities for implementing the sovereign public asset insurance scheme proposed within this project:

Regulatory authorities

- In summer 2021, NIC allowed a Sandbox Approach for the proposed insurance product.

Assemblies

- enhance DRR (implementing agreed DRM measures)
- update contingency plans with early warning system
- provide assets to be insured and define maximum pay-outs per asset class
- receive policy from insurance

Insurance provider

- define DRR measures with assemblies
- calculate insurance premium with assemblies
- issue final policy to assemblies
- assess claims with loss adjusters
- finalize claims settlement

Ghana Meteorological Agency

- determine occurrence of insured event (defined rainfall threshold)
- inform assembly and insurance of occurrence of the event



THE ENABLING FRAMEWORK FOR DISASTER RISK FINANCE IN GHANA

Lastly, the study also analyses the enabling environment of legal, regulatory, and political requirements for public insurance of assets and SMEs in Ghana, and looks into further hazards besides flood that could be considered to be covered in a public asset insurance programme as well.

CONCLUSIONS

The overarching conclusions from the study include that the awareness, perception, and interest of key stakeholders regarding insurance as part of an IDRM approach in Ghana exist and have greatly increased during the last years. However, currently, a sovereign public asset flood insurance programme is not a national priority as the government does not yet have the capacity to implement a sovereign scheme where the central government finances the insurance. Nonetheless, the results of the study show that there exist opportunities and momentum towards developing a flood insurance programme and recommend the piloting of the proposed scheme in order to adopt a phased approach to a sovereign flood risk insurance programme.

Activity name

Sovereign Flood Risk Pre-Feasibility Study for Ghana

Focus area

Greater Accra Metropolitan Area (GAMA), Ghana

Target group

Public assets under the control of assemblies in GAMA

Contact persons

Akua Acheampomaa Asante (GIZ)

E akua.asante@giz.de

Matthias Range (GIZ)

E matthias.range@giz.de, sv.fse@giz.de

This activity was part of the project...

Developing Risk Management Approaches for Climate and Health Risks

Project duration

01.01.2018 – 30.09.2021

Photo credits

Photo 1: © NADMO

September 2021

For further information, please refer to the complete study: GIZ (2021). Sovereign Flood Risk Pre-Feasibility Study in Ghana.

For further information on the developPPP.de project between GIZ and Allianz, please refer to the factsheet “Developing Disaster Risk Management Approaches for Climate Risks in Ghana”.

Disclaimer

This publication has been prepared by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in the frame of the project “Developing Risk Management Approaches for Climate and Health Risks” funded by the German Federal Ministry for Economic Cooperation and Development (BMZ).

