Preliminary Resilience Assessment

SUMMARY

Accra Metropolitan Assembly
The United Nations estimates that more than half of the world’s population currently resides in urban centers, a number expected to reach 66% by 2050. Projections show the fastest rates of urbanization are to occur in the developing world, especially in Sub-Saharan Africa.

Accra’s recent history has been characterized by rapid growth, much more than that experienced in all other parts of Ghana. This accelerated rate of growth and associated high population density present the City and its administration with a range of complex challenges.

Yet since its founding as a small, coastal fishing village in the 16th Century, the City of Accra has stood tall in the face of great challenges and calamities. The earthquake of 1939 serves as a reminder that we are not immune to natural disasters; today we remain vulnerable to flooding and coastal erosion caused by tidal waves. High unemployment, civil unrest, and building collapse are new threats to overcome.

Under this context, the Accra Metropolitan Assembly seeks to create a smart, resilient, and sustainable city which will prepare its citizens and systems to withstand such shocks and stresses – and to grow stronger as a result.

Membership in the 100 Resilient Cities network has deepened our understanding of Accra’s greatest challenges and has driven our resilience planning efforts. This Preliminary Resilience Assessment (PRA) is a milestone in our journey to ensure that the City will thrive in the midst of chronic stresses and acute shocks.

Together with our partners and stakeholders and all who call the City of Accra home, let us come together to build an Accra that we can LIVE IN & LOVE.

The Accra Metropolitan Assembly would like to acknowledge the support of all our partners in the quest to build Accra into a smart, resilient, and sustainable city. We especially appreciate the 100RC Team and Dalberg Advisors for their guidance and technical support through this process, and look forward to a strong working relationship throughout the remainder of the strategy development process.

We further acknowledge the work of those partners undertaking particular initiatives which will ultimately aid the City of Accra in achieving its mission of improving quality of life for all inhabitants and visitors.
What is a Preliminary Resilience Assessment?

Through our partnership with 100 Resilient Cities - Pioneered by The Rockefeller Foundation (100RC), the Accra Metropolitan Assembly is leading a collaborative effort to develop a roadmap to resilience for the City. We are engaging a broad range of community members to identify our unique priorities, with the aim of establishing an actionable set of initiatives. This Preliminary Resilience Assessment (PRA) is a diagnosis of Accra's resilience context and represents the first phase of the resilience strategy development process. It was developed through research, stakeholder engagement, the use of new analytical tools, and an evaluation of existing programs, initiatives and plans in Accra and completed primarily in 2016.

In the next phase of the process, Accra will release a Resilience Strategy that articulates the city's resilience goals, identifies opportunities for partnership, and explores innovative solutions. The City Resilience Strategy is one of the core tools that propels 100RC member cities through the process of building resilience. A Resilience Strategy is more than a milestone – it is a roadmap, a call to action.

On Accra Metropolitan Assembly

Accra is a cosmopolitan coastal city, the capital of Ghana, and the gateway to Africa.

Managed by the Accra Metropolitan Assembly (AMA), the city operates under the mission to improve the quality of life of all citizens, by providing leadership and opportunities for social and economic development whilst maintaining a clean, attractive, and secure environment.

The AMA further aims to shape Accra into a “smart, resilient, and sustainable city” which meets the aspirations of its populace, by utilizing the Sustainable Development Goals (SDGs) as a benchmark and catalyst for progress.
First Chief Resilience Officer (CRO)
The City of Accra appointed its first CRO, a new position in city government.

Preliminary Desktop Analysis
CRO and team reviewed a wide range of documents related to AMA to enhance and expand Accra’s resilience.

Landscape Scan
A landscape scan identified projects and stakeholders related to resilience-building in Accra.

Stakeholder Engagement
To better inform Accra’s Resilience Strategy, the CRO and team engaged 228 residents in the city using both in-person and online surveys.

Data Analysis using 100RC tools
Data gathered during stakeholder engagement were captured in specific tools provided by 100 Resilient Cities.

Accra applies to join 100RC
In late 2014, foreseeing the need to address the growing challenges of urbanization in Accra, the Accra Metropolitan Assembly prepared and submitted an application for the second round of the 100 Resilient Cities Challenge.

Accra joins 100RC:
On December 2, 100RC team announced the inclusion of Accra as one of 35 new cities selected to join its global network.

New Mayor Appointed
March: M. Adjei Sowah sworn in

Second Chief Resilience Officer Appointed
June to present: Second CRO serves the City of Accra

Development of Resilience Areas of Focus
June to October: Finalization of Areas of Focus

Deepening Exploration
October to December: Planning for Phase 2 of the Resilience Strategy development process

Strategy Development
December to present: Selection and design of initiatives & finalization of Strategy

Agenda Setting Workshop
Following this announcement, AMA in partnership with 100RC convened a wide range of stakeholders in a Resilience Agenda Setting Workshop in Accra on April 9.
7% of the economically active population in Accra is unemployed, compared to 5% of the national economically active population that is unemployed.

70% of the population in Accra is economically active. This is on par with the national rate.

7% of the economically active population in Accra is unemployed, compared to 5% of the national economically active population that is unemployed.

Prior to September 2016, when a “polluter pays” policy was instituted, 58% of AMA’s sanitation funds were spent on waste collection & transportation.

68.8% of the population nationally lives within compound houses. Many have inadequate basic facilities such as potable water, toilets, and/or a proper sewerage system.

51.5% Compared to 51.5% nationally.

*Other facilities add up to 0.5%.

Accra’s 1.6 million population represents 42% of the total population of the Greater Accra Region.

47% of the population are migrants (born outside the Accra Metropolitan Area).

47 people/hectare

51 people/hectare

Accra is sprawling: Density in Accra declined from 98 people/hectare in 1991 to 51 people/hectare in 2014.

2m

An estimated 2 million people commute into Accra everyday.

89% of the population within the AMA can read and write in one or more languages. This compares to 71.5% nationally.

89%
**Perceptions Inventory**

One-on-one interviews with residents of Accra generated the following inventory, cataloging their perceptions of the city’s strengths and weaknesses. For example, “Providing reliable communication and mobility” comes out strongly as an area where the City “needs to do better,” yet the Actions Inventory on the previous page demonstrates that the city is actively working on this issue. Other areas of resident-perceived concern include:

1. Meets basic needs
2. Supports livelihoods & employment
3. Ensures public health services
4. Promotes cohesive & engaged communities
5. Ensures social stability, security & justice
6. Fosters economic prosperity
7. Maintains & enhances protective natural & manmade assets
8. Ensures continuity of critical services
9. Provides reliable communication & mobility
10. Empowers a broad range of stakeholders
11. Ensures public health services; Ensures social stability, security & justice; Maintains & enhances protective natural & manmade assets; Ensures continuity of critical services.

483 total factors

**Actions Inventory**

Existing programs, plans, studies, policies, and other initiatives which have been undertaken by public, private, academic, and civil society partners in Accra were reviewed alongside the stakeholder engagement process. These were then mapped to the 12 primary and 50 secondary drivers of resilience in the City Resilience Framework, below utilized by 100RC. The analysis indicates that current planning and programmatic initiatives in Accra focus mainly on the following key areas:

1. Meets basic needs
2. Supports livelihoods & employment
3. Ensures public health services
4. Promotes cohesive & engaged communities
5. Ensures social stability, security & justice
6. Fosters economic prosperity
7. Maintains & enhances protective natural & manmade assets
8. Ensures continuity of critical services
9. Provides reliable communication & mobility
10. Promotes leadership & effective management
11. Empowers a broad range of stakeholders
12. Fosters long-term & integrated planning

129 total prioritised actions

129 total prioritised actions
Accra’s Priority Stresses

Stresses weaken the fabric of a city on a day-to-day or cyclical basis.

1. High cost of living
The individual and aggregate costs of food, rent, transport, and utilities make affordability the biggest challenge facing Accra’s population.

2. Inefficient Transportation System
While numerous public transportation options exist, they are often unreliable and unsafe.

3. Poor Waste Management
This is attributable to limited waste and sanitation management infrastructure, poor education on and behavior in waste disposal, and extremely low enforcement of regulations.

4. Poor Sanitation and Water Scarcity
At a household level, a lack of adequate and safe sanitation and water translates directly into increased health challenges, with diarrhea and other health complications a regular part of peoples’ lives. This indirectly reduces time for studying, employment, and leisure, leading to a stark decrease in quality of life.

Stresses are not listed in order of severity or magnitude and are based on analysis of stakeholder engagement.
Accra’s Priority Shocks

100RC defines shocks as sudden, sharp events that threaten a city.

1. **Flood**
   - Dumping of waste in drains results in choked drains, which reduces drain efficiency and leads to flooding.
   - The need for an upgraded drainage system is also rarely addressed, as is the inconsistent application of land use policies which also compound flooding problems.

2. **Fire**
   - Risks of fires are aggravated by electrical faults, illegal power connections, and lack of enforcement of proper wiring by electricians.
   - Recent cases of mass fires include market fires recorded from 2014 through 2015.
   - Fire-fighting infrastructure including installed hydrants, fire-tenders and other fire equipment are in dire need of upgrades.

3. **Disease Outbreak**
   - Cholera has dominated the charts in recent times when it comes to epidemics within the city. Yet it is not the only disease that impacts people’s lives.
   - Digestive diseases, bacterial infections, and other infectious and communicable diseases are more easily spread in Accra due to the infrastructure challenges related to sanitation and water management.

4. **Infrastructure/Building Collapses**
   - Poor application of building standards increases the risk of building collapses.

5. **Earthquakes**
   - Accra sits on an earthquake fault line. The last substantial earthquake occurred in 1939, claiming 17 lives.
   - Presently, most of the areas vulnerable to earthquake impact sit outside of the control of the AMA but would however look directly to the AMA for support in the event of an occurrence—placing high demands on an already resource-constrained city.

Shocks are not listed in order of severity or magnitude and are based on analysis of stakeholder engagement.
Discovery Areas: Opportunities for Further Exploration

Building on the analysis of Accra’s resilience challenges as identified through stakeholder analysis and the AMA’s priorities, we have identified key topics for resilience building that require further investigation.

These Discovery Areas will ultimately shape the overall direction of and initiatives within our city’s Resilience Strategy and are envisioned to offer a significant resilience dividend.

1 Strengthening Urban Mobility and Transportation

**Vision:** An Accra with affordable, inclusive, safe, and sustainable transportation options that support citizens to thrive and in the wake of everyday stresses as well as shortfalls that accompany disasters and emergencies.

**Rationale:** Driven by rising housing costs in central Accra, more and more residents have moved to the outskirts of the city and commute into the CBD for work. Yet poor transportation options and networks unduly burden these journeys, contribute to a loss in productivity, and add to traffic congestion and greenhouse gas emissions – thereby undermining the city’s resilience. The Resilience Strategy will explore an effective multi-modal transportation system which includes both motorized and non-motorized forms of transport; a key component will be a comprehensive enforcement strategy to ensure that regulations are adhered. Improving urban mobility within Accra will furthermore focus on enhancing existing transport options, better land use integration, and expanding innovation in the design and rollout of safer, sustainable, and equitable methods of helping people move around – with particular attention given to accessibility.

**Example Initiatives:**

- Launch an initiative focused on registration, upgrading, and increased organizing of the tro-tro industry in order to reduce risks, improve quality and efficiency
- Implement road intersection redesign pilots to rapid-trial pedestrian safety solutions emerging from Accra’s Pedestrian Road Safety Action Plan
- Create a working group of large employers within Accra to engage in developing data driven strategies for incentivizing use of public transportation by staff
2 Improving Management of Flooding, Waste, and Sanitation

Vision: An Accra where waste and sanitation are effectively managed in a manner that prioritizes safety, dignity, quality of life, and environmental sustainability.

Rationale: While Accra’s topography as a low-lying territory contributes to the city’s frequent flooding, poor waste management and insufficient drainage networks serve to exacerbate the challenge. A lack of resources and weak institutional capacities contribute to poor solid waste management in the city. However, other major factors have impeded effective waste management over time, including the inability to effectively use waste as a resource - by transforming an increasing share of waste into other usable products and thus depositing less in landfills. Coupled with flaws in the city’s drainage network, Accra’s exposure and vulnerability to flood hazards is increased. This is especially evident in low-lying and flood-prone areas, home to rapidly-expanding informal settlements. The dangerous nexus between poor waste management, flooding, and disease epidemics make the improvement of Accra’s waste management system a critical imperative for the city.

Example Initiatives:

- Develop a solid waste management strategy that includes a resilience lens, addresses the flooding-waste-sanitation nexus, and strengthens incentives for the private sector to value waste by surfacing opportunities within the value chain.
- Build on and scale existing early warning systems that alert citizens to imminent flooding events and their severity in order to reduce the impact of disaster.

3 Citizen Engagement towards Greater Accountability

Vision: An Accra that leverages media and citizen engagement to positively influence resilience-building activities, foster social cohesion, engender positive behavior change, and promote transparent governance.

Rationale: The City currently counts upon several mechanisms for citizen engagement that are supported by local communities, as well as a range of intermediaries from nongovernmental and community-based organizations to the media. City authorities directly involve citizens in decision-making processes through town hall meetings to discuss public policy and community durbars where citizens confer with elected representatives and should be empowered to monitor the implementation of projects. Yet with generally low citizen participation, the AMA is not getting the full benefits that an engaged populace could bring to impact on governance. In view of this, the city is prioritizing the improvement of current citizen engagement mechanisms and devising new opportunities for inclusive governance.

Example Initiatives:

- Create an app-based platform for citizens to engage in 2-way communication with the AMA particularly in times of disaster, unanticipated shocks, or other important matters.
- Implement a toll-free call line for citizen complaints to the AMA in order to improve feedback.
- Strengthen communication about, resourcing and integration of existing relief centers to better support Accra residents in times of natural disaster shocks/events.
4 Recognizing, Embracing and Supporting the Informal Sector

**Vision:** A more resilient, equitable, and inclusive Accra that better understands and incorporates the realities of informality in order to promote inclusive development, increased tourism, creative economies, and sustainable economic growth for the benefit of all.

**Rationale:** Accra is a city that thrives on informality: the majority of the population works in the informal economy and informal settlements are growing to serve the housing deficits and high rental costs that the City faces. Even those with formal employment and housing typically live blurred lives at the intersection of the two sectors. For many of Accra’s residents, the informal economy provides robust alternatives when formal systems break down or do not exist. The informal sector further holds the potential to address the growing unemployment challenge of the City. The sector is therefore critical to the city’s resilience; viewed in that lens, the AMA will explore innovative ways of creating opportunities for greater safety nets to workers within the sector.

**Example Initiatives:**
- Create an informal settlement in-situ upgrading program (e.g. re-blocking) in areas where this option would best serve the City and residents to improve services and mitigate the risks of fires and other shocks
- Strengthen the integration of bola taxis (motorized tricycles) into the formal waste collection system, leveraging their integration to strengthen safety nets and improve the resilience of Accra’s poor
- Expand & improve piped water infrastructure to improve the health and livelihoods of residents in informal settlements

5 Creating an environmentally sustainable city

**Vision:** An Accra that embraces green policies and infrastructure, enabling the city to be better positioned to manage recurrent and emerging environmental shocks and stresses.

**Rationale:** Climate change is having a growing impact on the citizens of Accra. Rising sea levels and the increasing occurrence of extreme weather events are a key contributor to major shocks such as flooding, coastal erosion and tidal waves. Simultaneously, pollution and loss of biodiversity is affecting the City’s ecosystems, and has come under severe criticism by many concerned citizens who see it as a threat to life and property – and to our future generations. As a result, the Assembly has intensified local efforts to protect biodiversity and the benefits it provides by developing more green spaces within the city’s boundaries, which goes a long way to help alleviate other environmental stresses.

**Example Initiatives:**
- Launch a green building certification program to develop a market for energy-efficient construction
- Strengthen resilience benefit of AMA Beautification Initiative so that it contributes to improving air quality, social cohesion, and ameliorating flooding in Accra.
- Provide Development permit fee reductions to incentivize developers to build energy efficient construction
The World Bank
The World Bank is a major supporter of the resilience building efforts of the City of Accra and has contributed to addressing some of the water and sanitation challenges that the city faces. As part of the Greater Accra Metropolitan Area (GAMA) Sanitation and Water Project, the Bank has assisted with provision of toilets and water facilities at the household and institutional levels.

Progress made so far:
- Building and renovating toilet facilities for 28 clusters of schools within the AMA
- Connecting pipe-borne water to the toilet facilities of 28 clusters of Schools
- Supporting the construction of 400 household toilet facilities that serve an average of 12 persons per facility
- Extension of pipelines for water to low-income communities in Ablekuma West Sub Metro
- Borehole construction in Ablekuma South Sub Metro

Way Forward:
- The World Bank will continue to support the GAMA Sanitation and Water Project to cover more households
- Through a separate partnership with the Government of Ghana, the World Bank will continue to support resilience building projects within the Greater Accra Metropolitan Area that are focused on metropolitan planning and coordination, urban flood and coastal zone management, vulnerable communities, and disaster preparedness and response

European Union Energy Initiative Partnership Development Facility (EUEI PDF)
Through a partnership with the EUEI PDF, the AMA is pursuing energy efficiency strategies for public municipal buildings. The project aims to demonstrate the benefits of energy efficiency through targeting government offices and operations, and elevate the AMA’s leadership role in encouraging other stakeholders within Accra to adopt energy efficient strategies.

Progress made so far:
- Development of an Energy Efficiency Plan for AMA
- Installation of a 5kw solar system for Accra Girls Secondary High School (SHS)
- Replacement of incandescent bulbs with LED bulbs for Accra Girls SHS
- Formation of Energy Efficiency Clubs and training in Accra Girls SHS and St Mary’s SHS
- Refurbishment of AMA Assembly Hall with inverter air conditioning systems and window blinds

Way forward:
- An application has been submitted to Building Efficiency Accelerator (BEA) for further support to expand upon the energy efficiency project, with a view to setting up a framework for a revolving fund aimed at supporting the development of energy efficiency related initiatives within the City, with a special focus on institutions supported by local government

Many other partners are also contributing to building the resilience of Accra.
Below are highlights from some of these collaborations.

C40
The C40 Climate Leadership Program assists member cities to plan for and address the challenges that climate change brings to all aspects of city life. The initiative supports the City of Accra in the development of a Climate Change Action Plan which will focus on climate change adaptation and mitigation strategies.

Progress made so far:
- Development of a greenhouse gas inventory, updated annually
- Capacity building for selected staff to become City Climate Planners
- Participation in annual CDP (formerly known as the Carbon Disclosure Project) reporting cycle
- Capacity building of AMA personnel in sustainable waste management technologies
- Support for hosting the first African Climate Change Adaptation Conference

Way forward:
- Continuous engagement with all network focal persons to discuss participation reports and standards
- Upcoming workshop on Land Use Planning Network event in August 2018 during which staff from the AMA Town and Country Planning department will strengthen their ability to support the city greening and sustainability agenda by participating in trainings around climate smart planning and standards
- Accra has been selected as one of nine African cities to receive C40 support for climate action, mitigation and adaptation
- Development of a City Climate Action Plan

The C40 Climate Leadership Program assists member cities to plan for and address the challenges that climate change brings to all aspects of city life. The initiative supports the City of Accra in the development of a Climate Change Action Plan which will focus on climate change adaptation and mitigation strategies.

Progress made so far:
- Development of a greenhouse gas inventory, updated annually
- Capacity building for selected staff to become City Climate Planners
- Participation in annual CDP (formerly known as the Carbon Disclosure Project) reporting cycle
- Capacity building of AMA personnel in sustainable waste management technologies
- Support for hosting the first African Climate Change Adaptation Conference

Way forward:
- Continuous engagement with all network focal persons to discuss participation reports and standards
- Upcoming workshop on Land Use Planning Network event in August 2018 during which staff from the AMA Town and Country Planning department will strengthen their ability to support the city greening and sustainability agenda by participating in trainings around climate smart planning and standards
- Accra has been selected as one of nine African cities to receive C40 support for climate action, mitigation and adaptation
- Development of a City Climate Action Plan

European Union Energy Initiative Partnership Development Facility (EUEI PDF)
Through a partnership with the EUEI PDF, the AMA is pursuing energy efficiency strategies for public municipal buildings. The project aims to demonstrate the benefits of energy efficiency through targeting government offices and operations, and elevate the AMA’s leadership role in encouraging other stakeholders within Accra to adopt energy efficient strategies.

Progress made so far:
- Development of an Energy Efficiency Plan for AMA
- Installation of a 5kw solar system for Accra Girls Secondary High School (SHS)
- Replacement of incandescent bulbs with LED bulbs for Accra Girls SHS
- Formation of Energy Efficiency Clubs and training in Accra Girls SHS and St Mary’s SHS
- Refurbishment of AMA Assembly Hall with inverter air conditioning systems and window blinds

Way forward:
- An application has been submitted to Building Efficiency Accelerator (BEA) for further support to expand upon the energy efficiency project, with a view to setting up a framework for a revolving fund aimed at supporting the development of energy efficiency related initiatives within the City, with a special focus on institutions supported by local government

Many other partners are also contributing to building the resilience of Accra.
Below are highlights from some of these collaborations.
Bloomberg Initiative On Global Road Safety (BIGRS)

In 2015, the Accra Metropolitan Assembly was selected to participate in the Bloomberg Philanthropies Initiative for Global Road Safety and to receive technical assistance aimed at reducing fatalities and injuries from road traffic crashes in the city.

Progress made so far:
• Development and release of a Pedestrian Road Safety Action Plan for the AMA
• Conducted road safety assessments on 3 road corridors (N1, N4, N6)
• Collaborating with the Ghana Highway Authority (GHA), Department of Urban Roads (DUR), and the National Road Safety Commission (NRSC) on improving safety standards on our roads

Way forward:
• The Lapaz Intersection, located on the George Walker Bush Highway (N1), an extension of the Trans-West Africa Highway, has been selected to pilot a design transformation that fosters safety for pedestrians under the Healthier Cities component of the BIGRS project for this year.
• The Police Motor Traffic and Transport Department (MTTD) has seconded an Officer to the AMA-BIGRS embedded team to support in coordinating enforcement within the AMA.
• A Memorandum of Understanding (MoU) between AMA (BIGRS) and Accra’s Motor Traffic and Transport Department (MTTD) is being studied by the Police to guide activities and ensure adherence to terms of the Grant Program. This MoU is to ensure the planned and coordinated enforcement and monitoring of actions that address the identified risk factors affecting road safety in Accra.

The Way Forward in Developing Accra’s Resilience Strategy

The concepts presented in this Preliminary Resilience Assessment (PRA) form a part of the Medium Term Development Plan (2018-2022) of Accra Metropolitan Assembly to support the agenda of making Accra a smart, resilient and sustainable City. This PRA also serves as the basis of Accra’s Resilience Strategy - the product of a years-long process which unites people, projects, and priorities, and surfaces crucial new solutions so that our city can collectively act on its resilience challenges.

As Accra moves into the second phase of the 100RC engagement, we will require careful consideration of the expertise needed to support the development of the Resilience Strategy. To produce a plan that is locally meaningful and sustainable, the city needs the input of all its citizens and all who call Accra home.

We invite you to join us!