

Top: Freetown, Sierra Leone. Credit: Michael Duf via Shutterstock. Inset: Yvonne Aki-Sawyerr. Credit: City of Freetown.

Mayor Yvonne Denise Aki-Sawyerr took office in Freetown, Sierra Leone, in May 2018, after serving as head of the Freetown City Council. A finance professional with over 25 years of experience in the public and private sectors, she had previously been involved with the campaign against "blood diamonds" and was instrumental in the response to the Ebola crisis in 2014. She has delivered two TED Talks, about turning dissatisfaction into action and about the capital city's initiative to plant a million trees, and has been named to the Time100 Next list of emerging leaders and the BBC's 100 Women list.

A leader in the C40 Cities global network, Aki-Sawyerr launched the Transform Freetown initiative and appointed Africa's first chief heat officer. She holds degrees from the London School of Economics and Freetown's Fourah Bay College. She spoke with Senior Fellow Anthony Flint in the fall; their conversation, which has been edited for length and clarity, is available as a *Land Matters* podcast: www. lincolninst.edu/publications/podcasts-videos.

Cultivating Climate Resilience in Sierra Leone

ANTHONY FLINT: Could you talk about the Transform Freetown initiative as a planning and action framework, and your assessment of its progress?

YVONNE AKI-SAWYERR: I ran for office in 2018, motivated by concerns around the environment and sanitation. My campaign message, "for community, for progress, for Freetown," translated into Transform Freetown. It focuses on four categories: resilience, human development, healthy city, and urban mobility.

Resilience includes environmental management; it also includes urban planning, because you cannot separate the two, and revenue organization, because sustainability will only come from the city's ability to sustain and generate revenue itself. The healthy city cluster includes sanitation, which goes very closely with environmental management for Freetown and many African cities. If you think about climate change, our teeny-weeny contribution to climate change, a lot of it actually comes from methane, from open dumping, but that also has huge health implications. So in the healthy city category was sanitation, health, and water.

What we did was, having come into office with those high-level areas of concern, we had 322 focus groups

with about 15,000 residents to get their views on affordability, accessibility, and availability of services across those sectors. We invited the public sector, private sector, and the international community via development partners and NGOs to participate in roundtable discussions.

Out of that process came 19 specific, measurable targets that we're working toward under Transform Freetown. We report against them every year back to the city, back to our residents. It really has been a way of introducing greater accountability, of holding our own feet to the fire, and it's very much community owned and community driven.

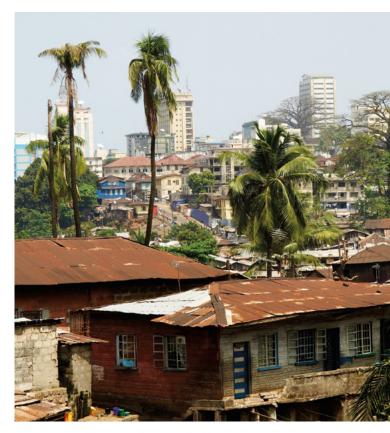
AF: Among all the climate threats the city faces, you appointed a chief heat officer. Why was a chief heat officer necessary, and what have been the results thus far?

YA: I'm asked often, how do you get ordinary people interested in climate change? In our case, it's not hard, because the consequences of climate change are intensely felt in our parts of the world, and we suffer greatly from flooding and landslides, hence my concern with the environment and being able to mitigate those impacts.

The [Arsht-Rockefeller Foundation Resilience Center] really got us thinking about the fact that there are more deaths from extreme heat than there are from the more visible and tangible disasters like floods and landslides. Extreme heat, particularly where water is in short supply, is a major impact of the warming climate.

In our case, the vulnerable are mainly those living in informal settlements. That's 35 percent of our city's population, and in those informal settlements, the housing structures are typically made from corrugated iron. With increased temperatures, you're effectively living in an oven. The other aspect of that is we have an informal economy. Around 60 percent of women in our city are involved in trading. Most of our markets are outdoor, so you're sitting in the sun all day long. Doing that under the intense heat exacerbates other negative health consequences. "I'm asked often, how do you get ordinary people interested in climate change? In our case, it's not hard, because the consequences of climate change are intensely felt in our parts of the world."

With the chief heat officer, we now are going to be able to embark on some research, collecting data to identify the heat islands; anecdotally, we have a sense of where those are, mainly in the informal settlements, but potentially also in the middle of the city. We need to be able to make arguments to challenge what's going on with the lack of building permits, and land use planning being devolved to the city, and the massive deforestation that continues unabated.



Informal settlements are home to 35 percent of Freetown's population. Credit: Abenaa via iStock/Getty Images Plus.

"Around 60 percent of women in our city are involved in trading. Most of our markets are outdoor, so you're sitting in the sun all day long. Doing that under the intense heat exacerbates other negative health consequences."

The chief heat officer has worked with market women and gotten funding from Arsht-Rockefeller [and Atlantic Council] to install market shade covers in three of our open markets. It's great to see the enthusiasm of the women and them saying, "Are we going to get this all the way along the market? We can see where it's starting, where it stops, but we need it too."

AF: What are your hopes for other climate mitigation projects, including the initiative to plant a million trees? How did that come about, and how is it going?

YA: Well, it came about because there's an appreciation that we were losing our vegetation, and that [worsens] the effect of extreme weather events, [as when heavy rains led to massive mudslides in 2017]. The lack of forestation is a major part of that. The goal is to increase vegetation cover by 50 percent.

Planting the million trees is the long-term plan, but in the meantime, you still have the runoff from the mountains filling the drains with silt. Our annual flood mitigation work identifies the worst of these areas, and clears the silt so that when the rains come, the water can still flow. On a smaller scale, we've also been able to build something like 2,000 meters of drainage in smaller communities. Beyond that, we've invested heavily in disaster management training and capacity building.

The thing about climate change impacts is they are really pervasive. If people are experiencing crop failure outside of Freetown, it will eventually drive a rural-urban migration because they're unable to sustain their livelihoods and they're going to come to the city looking for some means of making a living.

Newly installed shades in the markets of Freetown, part of an effort to combat the extreme heat of climate change. Credit: City of Freetown. That pressure of population growth in the city is something else that we have to deal with, whether it's introducing the cable car to improve transportation and reduce greenhouse gas emissions [or encouraging] the government to devolve land use planning and building permit functions so that we can actually introduce land management actions—which save life and save property, but also protect the environment and prevent people from building properties in waterways and streams and canals, which currently happens. All of this is made worse by not using legislation and urban management tools such as land use planning and building permitting in a constructive manner.

AF: Could you describe Freetown's property tax reform efforts, and the outcomes you've seen, in the overall context of municipal fiscal health?

YA: We worked on this property tax reform starting with 37,000 properties in the database of a city that's a capital city with at least 1.2 million to 1.5 million people—37,000 properties. When I came in, it was clear that that was not reflective of reality, but also the manual system that they operated, literally with a ledger book, was not really fit for purpose in the 21st century.





Mayor Aki-Sawyerr, center, helps celebrate the installation of marketplace shades. Credit: City of Freetown.

"We've been able to test and to see how much can be achieved if one is given the space to do so. We know that so much is possible, and so we keep going."

> One of our 19 targets is to increase property tax income fivefold by 2022. To go about doing that, we secured funding and partnerships to digitize. We changed from an area-based system to a point-based system. We worked on that by taking a satellite image of the entire city and building an algorithm to give weightings to features [like roofs, windows, and location], then comparing that against a database of 3,000 properties whose values were determined by real charter surveyors. We got the old-type assessment done. We were able to identify outliers and refine the model and eventually build a model which we now use as our property base.

> Through that process, we moved from 37,000 properties to over 120,000 properties. That meant we were able to meet our target of increasing our

property tax revenue from [\$425,000 to over \$2 million]. That in itself is the pathway to sustainability and being able to invest. A big part of fiscal health is that sustainability, but . . . unfortunately, the Ministry of Local Government [halted collections while developing national tax reform guidelines]. We were without revenue for about a year. We have started collecting again, but as you can imagine, compliance levels will take a long time to recover.

AF: Where do you find inspiration in the face of so many challenges?

YA: From the fact that we have been able to make a difference in the lives of Freetonians. We've been able to test and to see how much can be achieved if one is given the space to do so. We know that so much is possible, and so we keep going.

Anthony Flint is a senior fellow at the Lincoln Institute, host of the Land Matters podcast, and a contributing editor to Land Lines.