BREAKING BARRIERS
30 AND UNDER: WOMEN IN STEM

As part of Africa Science Week-Kenya (ASW-Kenya) 2019, we are celebrating Kenyan women who are 30 and under, and breaking barriers as young, female, scientists. Our Breaking Barriers women are using science, technology, and innovation for socio-economic development and have already shown demonstrable success in their young careers. These six scientists are equally notable for their scientific and technical accomplishments as they are for the priority they place on mentorship and leadership.

MEET WANGARI MUCHIRI
An energy planning and policy engineer focused on renewable energy and sustainable building, both locally and internationally.

“In order to advance your career,” Wangari Muchiri, Engineer and Obama Foundation Leader, tells us, “You don’t want to go where you fit in.” This has been the guiding force in her life and a message that she often shares with other young women looking to make an impact in the world. At times pragmatic and at other times an idealist, Wangari found her way into her undergraduate degree and eventual Masters programme in Renewable Energy Engineering by following her mother’s advice, who emphasized that energy would be one of the most significant world issues of the 21st century. Wangari took to the subject quickly, immediately recognizing the relevance of renewable energy in today’s world where coal and nuclear energy are witnessing a decline in popularity as concerns rise over their safety and impact on climate and health. But what Wangari has chosen to do with her specialization, is even more unique.

Wangari currently works with JLL, the international Real Estate firm, applying the concept of sustainability to Real Estate in Kenya. She is also the Head of the Technical Committee at the Kenya Green Building Society, a non-profit membership-based society that advocates for more sustainable and green buildings in Kenya. Wangari sees the promise sustainability holds for Kenya.

“It is a way to become more independent. A lot of our systems, like mobility or coal power, are so tied to what we are bringing in from other nations. Why not look at what we inherently have here and use that to be our enabler? For example,” she says, “Kenya sits on the equator and has some of the highest solar radiation levels in the world. Why are we not using that as a main source of energy and even exporting energy? Being able to generate energy for yourself as a nation is freedom. But more than that, we are always looking for ways to increase employment and improve the economy, energy could be the way that we do that.”

Kenya’s progress in renewable energy is something to be proud of, Wangari emphasizes.

“Africa’s largest wind farm has recently opened in Turkana, the move to incorporate solar power has been widespread and Kenya is one of the world’s leaders in terms of the percentage of renewable energy in our energy mix [80%].”

In terms of her work with JLL and the Kenya Green Building Society, sustainability and real estate are intrinsically linked, Wangari explains, “40% of the energy we use, is used in our buildings.” Our homes and our offices are therefore foundational locations to begin advocating for sustainability. The Kenya Green Building Society has a multi-pronged approach to advocating for more green buildings. Firstly, they are working with policymakers to create national building codes that all future building constructions must abide by. Secondly, they educate everyday people on what sustainable or green buildings are and therefore what to look for in real estate. Wangari brings up as an example, the importance of windows throughout the home to decrease the growth of mould and therefore common colds and diseases. Finally, Kenya Green Building Society helps certify buildings so they can meet international standards of sustainability. Certified buildings in Kenya include Vienna Court on State House Crescent Road, Britam Towers in Upper Hill, and Dunhill Towers in Westlands.

When it comes to Wangari’s long term career plans, she is ambitious in her vision. “I want to completely disrupt the energy sector in Kenya,” she says and plans to sit at the helm of Kenya’s next (and largest) energy company one day. There is a strength and power in thinking differently, Wangari insists. It is only through difference in perspective, that the world moves forward. “For projects to be sustainable and even successful, you can’t only think of one group. You can’t only build for one group.”