

Africa, waste and the butterfly effect

By [Adwoa Coleman](#)

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In light of the 57th Africa Day last month, we are prompted to reflect on the havoc that Covid-19 is wreaking not only across the continent, but across the world. The Covid-19 pandemic has changed the way people live and businesses operate, it has also shown how adapting behaviour can lead to desired change. As the continent fights the pandemic, it serves as a critical occasion to materialise much-needed transformative change toward a sustainable society.

Sustainability is based on the premise that we live in a world with finite resources and an increasing demand tied to the current population trends. Without a system for managing this, research shows us that we will reach a stage where the resources we have will no longer be sufficient for meeting the needs of the human race.

Overshooting Earth's resources

You may have heard of [Earth Overshoot Day](#): the day when demand for ecological resources and services surpasses what the Earth can regenerate in a year. This date occurs earlier and earlier in the calendar year as time progresses: In 2018 Earth Overshoot Day was August 1st and in 2019 it was July 29th. With the population of Africa expected to reach [2.8 billion in 2060](#) (currently approx. 1.3 billion), a [circular economy](#) will be key to achieving sustainable development: designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.



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Increased global waste generation

In 2018, the World Bank released the [What a Waste 2.0: A global snapshot of solid waste management to 2050](#) report which found that global waste generation is expected to more than quadruple by 2050 with South Asia and Sub-Saharan Africa set to generate the biggest increase in waste. Currently, 69% of waste in the Sub-Saharan Africa region is openly dumped and often burned and about 24% of waste is disposed of in some form of a landfill with only 7% of it being recycled or recovered.

The *Africa Waste Management Outlook*, determined that a conservative estimate of the value of municipal solid waste generated in African urban areas is \$8.0bn per annum, of which \$7.6bn worth of valuable resources (96%) is currently lost through the disposal of waste each year. When you consider this from a purely business perspective, it shows a clear availability and growing supply of a raw material, not waste, if we are thinking in a circular economy mindset. Why isn't anyone developing this business case?



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Addressing Africa's socio-economic challenges

Unlike in Europe where the drivers for waste management are environmental, in Africa, the drive is largely socio-economical owing to low GDPs, high unemployment rates and lack of adequate formal waste management infrastructure. In

2019, it was estimated that one in three Africans — 422 million people — live below the global poverty line. They represent more than 70% of the world's poorest people*. In considering Maslow's hierarchy of needs, the clear prioritisation of basic needs like food, water and shelter will always win over secondary needs like waste management. To make it tangible for this cross-section of the population, there is a need to tie it to their socio-economic well-being.

Globally, the guiding framework for achieving sustainable development is the [Sustainable Development Goals \(SDGs\)](#), a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated — that is, they recognise that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability, somewhat like the butterfly effect - the phenomenon in chaos theory that intimates that one small action in one place can have a larger effect in another.



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13 Mar 2020



It takes one action

This theme is very salient in Dow's Plastic business' three-prong sustainability strategy for Africa. We aim to advance a circular economy, end plastic waste in the environment and increase the impact through partnerships. This strategy, though global, looks very different in implementation from continent to continent, from country to country and even as granular as from community to community. Considering all the factors at play in Africa around waste management, it is becoming increasingly clear that to have any true impact on the overall system, as daunting as the challenge is, it takes one action.

One person who decides to sort their waste at home and in turn causes everyone in the household to start doing same, one waste picker who walks through the community harnessing recyclable materials thereby preventing them from ending up in the environment or a landfill, one individual deciding to start a company to recycle or convert post-consumer plastic into innovative end-uses, one government that dares to try and solve the problem holistically by putting in place pro-circular economy legislation, one company that strategically sets out to identify opportunities to help solve the problem thereby enabling the actions of all the previous actors to jointly have a larger impact.

Now imagine the multiplier effect of all these single actions by multiple parties across the continent.

**Kristofer Hamel, and Martin Hofer. "Poverty In Africa Is Now Falling — But Not Fast Enough". Brookings, 2019*

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