

# CLIMATE LOCAL:

## Communicating locally to protect globally

[www.albanyassociates.com](http://www.albanyassociates.com)

# THE START-UP THAT IS TURNING PLASTIC WASTE INTO SUPER STRONG BRICKS



## PROBLEM

- In Nairobi, around 500 metric tonnes of waste is created every day. On the outskirts of the city is Dandora dump, a waste site the size of 22 football fields.
- Plastic waste clogs up water ways, lakes, and rivers, all leading to supply issues and further issues when this waste reaches the ocean
- Plastic waste scattered in water and on the ground is a lethal hazard for wildlife and animals
- The US has proposed trade deals with Kenya in the past that includes the exporting of US plastic waste over to Kenya. If this were to happen, then the plastic problem in the country would be compounded

## SOLUTION

- In 2018, a young female biochemistry engineer named Nzambi Matee founded the company Gjenge Makers
- Gjenge Makers takes plastic waste, heats it to a melting point, and then mixes it with sand to act as a binding agent. The result is building blocks that are stronger than concrete, the traditional building material in Kenya
- It took around 9 months for the first brick to be produced, but since then the process has been automated with specifically designed machines that create an effective supply chain
- Matee won the *Young Champion of the Earth 2020 Africa* award from the UN Environment Programme

## IMPACT

- The bricks that are produced are around 35% cheaper and 7 times stronger than traditional concrete ones
- There is a current capacity for around 15,000 bricks to be produced every day
- The company so far has recycled just over 20 metric tonnes of plastic waste, with a goal of 50 by the end of next year
- Currently production is focused around paving slabs, but Matee has already expressed a desire to expand the business into the production of construction bricks for houses

## AT A GLANCE

- Plastic waste in Kenya, particularly Nairobi, is causing local and global issues for waterways and wildlife
- A Kenyan entrepreneur has devised a method where plastic waste can be taken and melted down, then mixed with sand in order to produce sustainable and recycled building materials
- The company has grown quickly and successfully, but if Kenya is to truly tackle its plastic pollution problem, then the entire nation needs to be made aware of the damage that plastic does



## COMMUNICATIONS

- The promotion of plastic bricks has benefits not just environmentally, but socially too
- With the cost of production and materials much cheaper than concrete bricks, the potential for greater affordability in house building is clear
- Whilst the company is seeing good numbers and progress, the issue of plastic waste in Kenya is so big that Gjenge needs support in expanding and spreading its message if it is to make a significant dent in Kenya's plastic problem
- Whilst Kenya introduced a ban on single use plastic in 2017, the issue hasn't really been tackled. Recycling or limiting the use of plastic isn't something that is considered enough in Kenya, and it is going to require behavioural and psychological changes across the whole country to make a real difference