

Ecological Waste Management Creates Jobs in Kenya



Faith Otieno, Compost Facility Manager, mother of two children, previously unemployed, at the pilot composting facility in Kangemi.

The 4.5 million residents of Nairobi, the capital of Kenya, burn their trash or dump it illegally in the city because adequate waste disposal is unaffordable. This climate protection project provides affordable waste management services: 95 per cent of collected waste are recycled or composted. Thereby reducing carbon emissions.

As in many other fast growing cities around the world, waste management is a huge issue in Nairobi. Due to inadequate planning and a lack of financial resources in public administrations 2.5 million people or two third of the population do not have access to any affordable waste management services. Therefore, most residents burn their trash or dump it illegally in the city and as a result often suffer severe health problems like infectious diseases or respiratory health symptoms among adults and children

The vision of myclimate's local partner TakaTaka Solutions ('TakaTaka' stands for the Kiswahili word 'waste') is a world without waste. After having run a pilot in Nairobi's low-income area of Kangemi for two years, TakaTaka Solutions currently provides affordable waste collection services to 120,000 households, of which 60 per cent are in low-income areas. Daily, 55 tonnes of waste are collected, sorted, recycled and composted. The collected waste is being sorted into 40 fractions, and thus be recycled 95 percent. Three recycling points have been built in the Kangemi slum and in the quarters Kawangware and Githogoro.

I was really impressed by the project. There is no official waste disposal in Nairobi. With this company, it is possible to ensure that the enormous environmental strain and impact on human health resulting from unregulated waste disposal can be mitigated.

Swiss Environment Minister Simonetta Sommaruga

Project type:

Waste Management and Compost

Project location:

Nairobi, Kenya

Project status:

In operation, no credits available

Annual CO₂ reduction:

6,275 t

Situation without project

No adequate waste disposal or composting

Project standard

Gold Standard[®]

VER

Impressions



Simonetta Sommaruga, Swiss Federal Councillor, visits the project as part of the UN Environment Assembly, UNEA, in March 2019. Foto: Alexandra Wey/Keystone



Neighborhood kids are showing the waste collectors of the project that they were just as strong.

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Recyclable materials (paper, glass, plastic, etc.) are processed and sold to recycling companies. From August 2019, TakaTaka Solutions will also have its own recycling facility for single-use plastic trays and containers. This will be the first such recycling facility in Kenya. Organic waste will be processed into compost in a separate composting plant. The pilot composting plant in the Kangemi slum can process five tons of organic material per day. In order to keep pace with the increasing amount of biowaste, a larger composting plant was built in Banana Hills in 2016, with which 25 tonnes of organic waste can be converted into compost daily. This natural fertilizer will be sold to farmers as high-quality and valuable compost. The effect of the organic fertilizer on soil quality and agricultural yields is being tested on two test farms.

The waste company offers 250 underprivileged young people a job, for example as waste collectors and sorters or on one of the composting plants. The project is expected to reduce more than 62,000 tonnes of CO₂ by recycling the waste fractions over the next ten years. This holistic approach tackles the waste problem with a sustainable social business approach by adding value to waste and creating jobs. It will also significantly improve living conditions in terms of pollution and health.

Life Cycle Analyses of over 40 waste groups

From 2016 to 2018, together with TakaTaka Solutions, myclimate carried out a project supported by the Swiss federal government on the improvement of resource efficiency in the area of waste management in the Kenyan capital city of Nairobi. In the course of the project operational efficiency was to be improved and the range of services offered by TakaTaka Solutions was to be expanded by means of sustainability evaluations.

During this project myclimate carried out life cycle analyses of over 40 waste groups and analysed the impact of recycling and composting on the climate and environment. The ecological advantages of organised composting compared to the random dumping of biological waste were also revealed, and the importance of recycling activities on the road to a recycling economy was emphasised. This assessment forms the basis for detailed waste and recycling reports, which TakaTaka Solutions can now send to its business customers each month, thanks to the analysis carried out by myclimate. The reports are an important instrument to make waste producers aware of the environmental impacts of waste and to motivate them to implement measures to avoid waste. Nairobi-based TakaTaka Solutions has been able to introduce an environmentally friendly local waste management system thanks to advice from myclimate, amongst others.

The economically and ecologically optimised collection and recycling system, as well as additional services such as waste and recycling reports, enabled the company to become the biggest waste company in Kenya at the start of 2018.



The dumps cause severe health problems and contaminate the groundwater.



The produced compost is being tested as fertilizer at one of the two testfarms.