

Trees

Life depends on trees, particularly in Africa. 71% of Africa's total energy use is fulfilled by trees, with electricity only contributing 6%. In rural areas, people depend on trees for 90% of their energy.

Simon, Excellent Development co-founder –

'With 90% of energy use in rural Africa being firewood, then of course people's first priority is to have enough wood to live and to cook. Without firewood, you die – just - maybe take you longer, but you'll die if you have no fuel. So the first priority of the communities is to grow those trees. After that, the next priority very often from the farmers is fruit trees, which helps improve diets of course, but also gives them an opportunity to earn money. Building materials is another aspect, to build a home. If you have haven't got the cash, if you can provide the wood yourself, to build the house, you can make clay bricks because there is more water in the valley from the sand dam, then people are able to move forward and have good shelter.'

Lack of trees is one of the gravest threats to ecological stability and food production in Africa.

Rhoda, farmer - *'We used to collect firewood far away but these days there is no firewood to collect. What we do is, we cut some branches of the trees, but not cut the whole tree. We are not allowed to cut the big tree, but only the branches. It's a good thing because we are not damaging the environment.'*

Trees can achieve so much in changing people's lives and transforming environments.

Prof. Mugambi, University of Nairobi – *'The micro-climate here has changed a great deal and it has changed because of the following reasons. First of all trees have been planted and normally this area would have Acacia and grass. But the community here over the last 25 years have planted lots of trees. What this has meant is that there is more precipitation because of arresting the clouds. There is much more dew now, here, and also, the birds and the insects and the wind, are bringing more seed here. So what is happening here is that over the last 25 years this climatic zone has shifted from fairly semi-arid zone 5, geographically, to zone 3.'*

Trees absorb Carbon Dioxide, fertilize soil, prevent erosion, and help to absorb rainwater, whilst at the same time providing fuel, food, fodder, compost, building materials and even medicines from their wood, leaves and fruit.

Charles, farmer - *'There are some of the trees that we plant, or to be planted in the shamba, and those trees can help us to maintain the moisture in the soil, because as the tree grows, the roots are growing and these roots of most of the trees, their roots help to lighten the soil. So when the water comes, because that area is so dry, it sinks in the shamba very easily. So, in that case, it helps.'*

A fantastic example of a multi-purpose tree is Maringa. Weight for weight, Maringa leaves contain more Vitamin A than carrots, more calcium than milk, more iron than spinach, more Vitamin C than oranges and more potassium than bananas, whilst the protein quality of Maringa leaves rivals that of milk and eggs.

Simon, Excellent Development co-founder –

'Once you've increased the water capacity in a community, that enables more water to be used for vegetable nurseries, but also we encourage communities to set up tree nurseries. Planting trees has been a big problem for many many years, because of the difficulty of water. But by the community coming together and creating their own tree nursery - the communities run the tree nursery, our field officers provide a little bit of expertise, they provide seedlings bags and some seeds – but the community then create and run their own tree nursery. The rules in which they operate is that they can have as many seedlings as they like. When the rains come, they plant. But they have to have dug a 2 ft cube hole, they have to have gone and collected manure, and then they can plant the tree. And that's why our survival rate of trees is between 65 and 90%, whereas overall in Kenya the survival rate is 2%. Only 2% of trees in Kenya survive.'

Communities plant over 85 different species of trees, half of which are indigenous, the rest being long-term localised exotics. Excellent encourages them to grow trees first and foremost. The choice of what they plant is up to them. All the communities know the value of and need for trees. It's their work to create sand dams that enables them to make this need become a reality and benefit from their existence in the short and the long term.