

Trees of life

Reading: Daniel 4: 4-27

SCRIPT

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Good morning, and welcome to this service where we are joining with other churches across the UK in celebrating Climate Sunday.

The aim of Climate Sunday is to encourage UK churches to:

- Hold a climate focused service, as we are doing today, to explore the theological and scientific basis for creation care
- To pray for our planet and the people most at risk from climate disasters
- To commit to take action to reduce our church's carbon footprint
- To tell our politicians and leaders that we want a cleaner, greener and fairer future for our planet

So this morning we will be looking at the role of trees in caring for our environment and addressing the climate crisis. To start with we will look at what the Bible says about trees, and then we will look in more detail at how trees can help to address the current climate and environmental crisis, both here in the UK and in other parts of the world. Finally we will examine the Bible story we listened to earlier, about King Nebuchadnezzar's dream, and Daniel's interpretation of it, with the help of some stories from the Christian international children's charity World vision.

For those who don't know World Vision, it is a child focused Christian organisation that works with vulnerable children and their communities, across Latin America, Africa, the Middle East and Asia.

So, to begin with, what does the Bible say about trees?

Well, you may not know this, but trees are mentioned more in the Bible than any other living creature apart from people and God.

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- Trees are mentioned on the very first page of the Bible
- And in the first Psalm
- And on the last page of Revelation, the final book of the Bible.

And nearly every major Bible character has a tree associated with them:

- Noah is linked to the Olive branch
- Abraham is linked to the oaks of Mamre
- Moses – the Burning Bush

- Joseph is described as being like a vine

And in the New Testament:

- Zacchaeus climbed a sycamore tree
- Paul described the Gentiles as branches of an olive tree

Also, in three of the Gospels, Jesus describes the Kingdom of God as being like a mustard seed which is planted and then grows into a large tree.

Psalms and Jeremiah both describe a tree that is planted by streams of water – its leaves are green, and it bears fruit. In fact, Jeremiah 17:8 says:

“They will be like a tree planted by the water that sends out its roots by the stream. It does not fear when heat comes; its leaves are always green. It has no worries in a year of drought and never fails to bear fruit.”

This highlights some of the benefits of trees and why they are so important to us, and particularly to many of the communities where World Vision works.

World Vision works in some of the most fragile, vulnerable and marginalised communities across the world, including in Nyatike in south west Kenya.

When World Vision first started working in the communities of Nyatike, many families struggled to have enough food to eat. The area was prone to floods and droughts, causing soil erosion, making it harder for farmers to grow food. Climate change was making this situation worse, and many of the techniques that farmers were using were not suitable as the soil became worse making it harder still.

Also, many of the poorest farmers did not have adequate access to quality seeds, or drought resistant varieties, and weren't able to grow a diverse variety of crops. They were therefore much more vulnerable to floods, and droughts, and the rises in temperature and the increasing uncertainty about climate, weather and seasons.

So in areas like this, trees are very important:

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- They can be a source of food – fruit, but also herbs come from trees and shrubs
- They can also be an important source of fuel, with many of the poorest people around the world dependant on wood, or charcoal, as a cooking fuel
- Trees, of course, are also used for providing wood for construction, for houses, and also for furniture

But as well as those direct benefits coming from trees – as a source of food, fuel and construction material, trees provide more indirect benefits.

In parts of the world prone to drought, trees enable the soil to absorb water more effectively, and the shade from trees reduces the amount of evaporation, so the land is able to hold more water, and can therefore cope better with periods of drought. Trees also promote greater biodiversity, with more birds and insects attracted by the trees, which helps to increase soil fertility.

As well as shade, trees can slow down strong winds, and so act to prevent, or reduce, the amount of topsoil that is blown away, again helping to maintain soil fertility.

So in Nyatike World Vision have been teaching poor farmers the practice known as 'agro-forestry'. This involves keeping trees in the fields, rather than removing them.

We are also supporting these communities through helping them to establish savings groups, developing income generating activities and small businesses, increasing their access to local markets, and supporting families in providing more nutritious food for their children.

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Also, trees can provide a place to play for children, something that is perhaps easy to forget when we focus on health, nutrition, child protection, but play is important, and trees can be good for play, from climbing trees, to using branches and twigs in games and imaginary play. All of which is important to a child's development.

And it's helping the planet! Trees are very important for absorbing carbon, which has become even more important as we see the impact of climate change, especially on the poorest communities.

But planting trees isn't always the best thing to do.

First of all, planting a seed or a small sapling is no guarantee of producing a fully-grown tree. Particularly in places where there is a shortage of water, and no opportunity for watering that newly planted sapling, with a very small root, it is actually fairly unlikely that it will become established, with roots reaching down to the water table. So a lot of saplings that are planted don't go on to become trees.

Secondly, in some cases unfortunately, the response to the need for more trees is to plant single tree varieties in large plantations, which rather defeats the object, as this can lead to further soil degradation and reduces bio-diversity, even if it has the advantage of perhaps being a quick and easy way of planting many trees.

So what is the answer to this problem?

Well, to start to answer this, I would like to take you back to the Bible reading we had earlier, in the book of Daniel, chapter 4.

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Nebuchadnezzar dreamed of a tree that was cut down, leaving just a stump and the roots in the ground. This symbolised the way that he was to be removed from his position of power and driven out of Babylon. However, when he honoured and glorified God, his kingdom was restored to him.

In his dream the tree was cut down, but the root was not destroyed. This meant that the roots were still able to receive water and nutrients from the soil, and the tree hadn't died. It was able to restore itself, in the same way that Nebuchadnezzar was able to restore himself on his throne.

How does this help us in being able to successfully restore forests?

In Nyatike, and in many other places, World vision is helping farmers and local communities to use a technique that is very similar to Nebuchadnezzar's dream. We call it 'Farmer Managed Natural Regeneration', which is a bit of a mouthful.

The technique is based on the fact that when trees are cut down, particularly in poorer communities, usually the tree is cut at the ground level and the root is still in place. For mature trees this will usually be a substantial root system, which is sometimes referred to as an 'underground forest'.

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If these stumps are left alone, small clumps of shoots will begin to grow on them, creating a small bush. This is not particularly helpful to a farmer, so they will often cut back the bush to leave their field clear again.

However, if instead of cutting back all the shoots, they leave two or three, then the large root system underground will put all of its energies into just those two or three shoots rather than lots of shoots. This then means that those shoots begin to grow quite quickly. The farmer then continues to prune those shoots as they grow, getting rid of extra shoots, so that the growth continues to be concentrated in those two or three shoots. Soon they will have grown back into a full tree, in the same way that Nebuchadnezzar's tree was restored, and his throne restored once he acknowledged God.

And not only do these trees grow back quickly, and much quicker than growing a tree from a seedling, the process of pruning enables farmers to have a supply of wood that can be used for firewood, or for fodder for animals. So by using the FMNR technique farmers and their communities can contribute to reforestation but can also use the wood that is pruned for a variety of purposes.

This can lead to lots of benefits and improvements for the whole community, as we will see from this video:

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Everything is connected video: https://www.youtube.com/watch?v=p-terQL6RO0&feature=emb_logo

This is the approach that World Vision has been promoting in Nyatike, and we've seen some impressive results, as the following story of Naaman will show.

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13-year-old Naaman is an inquisitive and determined boy. He saw his widowed mother, Pamela, struggling to feed the family with the small amount of maize and beans she could grow. She was sometimes forced to look for casual – and potentially dangerous – work at the local gold mines. But Naaman also saw his neighbour, Peter's, flourishing trees and crops. So, he decided to ask Peter how he did it.

Peter is a Farmer Managed Natural Regeneration champion in his village. With training from World Vision, he's restored his land by regenerating indigenous trees and using more sustainable farming techniques – many of which can work for farmers and kitchen gardeners across the world.

The range of techniques we promote through training like this includes:

- growing a wider variety of crops,
- collecting rainwater for use in dry periods and using small scale irrigation,

- growing pulses, such as mung beans, together with maize and other traditional crops as these replenish nitrogen and improve the soil,
- using mulch to improve soil quality,
- regrowing trees from stumps by encouraging healthy, strong new growth from existing root systems, using the FMNR method,
- and planting new trees.

Together, these techniques improve the fertility of the soil and help it to absorb more water. So, when the next climate shock hits – be it a flood or a drought – the farmland in Nyatike should be better prepared to cope.

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After school and at weekends, Naaman started to learn from Peter and soon saw the benefits.

“I have seen our trees grow bigger and we also get fruit to eat such as guava, avocado and other local wild fruits,” Naaman marvels.

With the new methods they’ve learnt, Pamela and Naaman’s last maize harvest filled three and a half bags of maize, rather than the usual two.

With better soil, they’re getting more food, and Pamela is in a better position to feed her children, and make sure they can go to school.

So as I finish, I would like you all to remember:

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- Climate change is making life harder for many in the poorer parts of the world, but there are things that can be done to help people adapt
- Trees are important, both to help reduce carbon dioxide in our atmosphere and also for helping vulnerable farmers to adapt and become more resilient to climate change
- But in more drought-prone, dryer parts of the world it is more effective to regrow and regenerate trees than to plant seedlings
- Regeneration is more likely to improve bio-diversity and some tree planting schemes are based on single tree types and can cause more harm than good

Please pray:

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- Pray for CoP26, the international climate change meeting that will take place in Glasgow, in November. Pray that real change can come about to reduce our global emissions and stop climate change getting worse
- Pray for communities in places like Nyatike and for families like Naaman’s as they find ways to adapt to climate change
- Pray that God will guide each of us in ways that we can change our habits and our lifestyles to reduce our own carbon footprints and our negative impact on the environment around us