

ETHIOPIA

The forests that churches kept

In northern Ethiopia, most forest is gone. The patches that remain surround churches, and priests are now helping protect them.

WHERE	Bahir Dar
WHO	Alemayehu Wassie, a forest ecologist, Meg Lowman, an American scientist, and the priests of Ethiopian Orthodox churches
WHEN	2007 to 2019

4 min read

CHAPTER ONE

The story

Drive through the dry highlands of northern Ethiopia, and you see wheat fields and grazing land. Then you see a patch of thick green forest, and in the middle there is a church. Around 35,000 of these church forests are scattered across the country.

Most of Ethiopia's forest has been cleared for farms and animals. It once covered about 40 to 45 percent of the country. Today it covers only about 4 to 5 percent, depending on the source.

Alemayehu Wassie grew up in the north, in South Gonder. As a boy, he walked to church along dusty roads between wheat fields. Then he stepped into the church forest, cool and full of birdsong.

> **From an ecological perspective, it's like going from hell to heaven.**
>
> ALEMAYEHU WASSIE, FOREST ECOLOGIST, TO NATIONAL GEOGRAPHIC

Counting, then protecting

Wassie became a forest scientist. By 2007, he had counted the plants in 28 church forests for his PhD. The priests did not see the point of his work.

That year, at a conference in Mexico, he met an American forest scientist, Meg Lowman. She had contacts in US science. He had the trust of the priests. They began to work together.

They held workshops for priests. At one, more than 150 priests came, some walking for days. The scientists showed them Google Earth pictures on a bedsheet. The priests saw how much forest had been lost.

35,000
church forests in Ethiopia, by one estimate

150
priests at one early workshop

20
communities helped to build forest walls by 2019

A simple wall

Cattle were a big danger. They wander in and trample young trees. So the priests and scientists chose a simple fix: low stone walls around the forests.

The priests found their own way to build them. They took stones out of their pastures. That also helped their crops grow better, Lowman says.

By 2019, the pair had helped more than 20 communities build walls. Where walls stand, the forests are thriving, National Geographic says. Some priests have even moved their walls outward to grow their forests.

It is not a full cure. Eucalyptus trees are creeping into some forests, and farms still press close. Wassie calls the project a work in progress.

How it unfolded

- **2007** Wassie finishes a PhD on 28 church forests and meets Meg Lowman.
- **2010** A research project begins on 28 church forests in South Gonder.
- **2018** Nature reports that about 15 churches have built walls.
- **2019** National Geographic reports more than 20 communities with walls.

CHAPTER TWO

What makes it special

People who saw forests as part of their faith kept them alive for a very long time. The scientists did not replace that care. They worked with it.

Walls are simple and cheap, but they cannot fix everything. The forests still face farms and invasive trees.

OUR TAKE

Lasting conservation often grows from what a community already holds sacred.

CHAPTER THREE

What we can learn

1 Work with what people value

Priests already saw the forest as part of the church.

Try this: Ask what a community already protects, and start there.

2 Show people the big picture

Google Earth pictures on a bedsheet showed how much forest was lost.

Try this: Use pictures and numbers to help people see a problem.

3 Choose simple fixes

Low stone walls kept cattle out, and the priests built them with stones from their pastures.

Try this: Pick a solution people can build themselves.

4 Say what is still unsolved

Eucalyptus trees and farms still press on the forests.

Try this: Be honest about the problems that remain.

ONE THOUGHT TO TAKE AWAY

What people hold sacred, they often protect.

Sources

National Geographic
Ethiopia's 'church forests' are incredible oases of green

Nature
Biodiversity thrives in Ethiopia's church forests

Mongabay
Researchers, locals work together to save Ethiopia's 'church forests'

Fact-check note: The sources agree on the main story and differ on numbers. Forest cover: National Geographic says trees covered roughly 40 percent of Ethiopia in the early 1900s and now about four percent; Nature says 45 percent then and 5 percent now; Mongabay says less than 3 percent of the original forest remains; the story gives the ranges 40 to 45 and 4 to 5 percent and says it depends on the source. Number of church forests: about 35,000 (Nature, and Mongabay citing studies); National Geographic gives no total; the story says by one estimate. Wassie's childhood walks and the quote "from hell to heaven" are from National Geographic. His PhD on 28 church forests in South Gonder (2007, Wageningen University) and the 2007 meeting with Meg Lowman at a conference in Mexico are from Nature; National Geographic and Mongabay also describe the meeting and the 28 forests. That the priests did not see the point of his early survey is from Nature. The workshop with more than 150 priests, some walking for days, and the Google Earth pictures shown on a bedsheet are from National Geographic; Nature also mentions Google Earth pictures. A research project starting in 2010 on 28 forests is from Mongabay. Walls: Mongabay (2015) says the team had helped conserve 10 of 28 study forests with walls; Nature (2018) says 15 or so churches had built walls and that Lowman and Wassie offer cash donations to churches that build protection; National Geographic (2019) says more than 20 communities; the counts are from different dates and may use different definitions, so the timeline gives each with its source. That the priests took stones from their pastures, which also raised crop yields, is Lowman's account in Mongabay; Nature also says people volunteer to remove stones from fields, which is good for crop yields. That forests are thriving where walls stand is from National Geographic, which also says intact church forests have better water quality, more seedling survival and more pollinators than the surrounding fields; Mongabay reports a study finding that livestock grazing reduces seedling survival and growth; we did not check the underlying studies. Priests extending walls outward is from National Geographic and Nature. Eucalyptus creeping in and cattle trampling are from National Geographic; "work in progress" is Wassie in Nature. The Ethiopian

Orthodox Tewahedo Church's membership is given differently (nearly 50 million; more than half of Ethiopians), so the story gives no figure. Nature also says land was nationalised and cleared under communist rule in 1974 to 1991; the story leaves this out. The pin shows Bahir Dar, where Wassie teaches; the forests are across the north. Lines marked "Our take" are interpretation. Everything else comes from the sources above.