

This article was originally published as a guest post on KayakCanoeBlogger.com on 11/4/12

# Can't cross a raging river? Here's how to fix it.

By Faith Attaguile



The people of Meghalaya had a problem.

During the monsoon season, the normally gentle, easy-flowing rivers and streams in their beautiful home become raging torrents ... impossible to cross. From June to September – four months of the year – wild, dangerous rivers smash through mountain valleys, isolating villages from villages, people from people. What could they do?

Living up close and personal with the natural world, the people of Meghalaya understood

how things worked in nature much better than most of us do today. And they came up with an amazing solution to their problem ...

Map source: [CC-by-sa PlaneMad/Wikipedia](#)



## First, let's find Meghalaya

Hidden in the isolated northeast region of India, Meghalaya is known for its lush, green hills and valleys, all crisscrossed by life-giving rivers and streams.

Here's a glimpse of one of its magnificent waterfalls. At 1,035 feet, Nohkaliaki Falls is India's fourth tallest waterfall:

**VIDEO 1:** [A Meghalaya waterfall](#)

Known as "The Land of the Clouds," Meghalaya gets an extraordinary amount of rainfall each year during the monsoon season. Indeed, this distant region may be the wettest place on

earth.

Once, when 82 feet of rain fell in one year, Meghalaya broke a world record.

So at the snap of the monsoon finger, Meghalaya's rivers turn from gentle to wild. Angry and dangerous, they roar off mountaintops and through valleys from June to September. They are uncrossable.

## **An ancient tree to the rescue**

Meghalaya's indigenous people solved their problem without the aid of modern suspension bridge technology. They didn't need heavy machinery or steel. They just needed the natural world.

In fact, all they needed was a tree.

A special tree that clutches to hillsides, protects riverbanks, or sometimes even perches atop huge boulders.

A tree called the *Ficus elastica*, or Indian rubber tree. Some of these trees even grow and thrive in the middle of Meghalaya's rivers and streams.



The Indian rubber tree can grow up to 200 feet tall and 6 feet wide.

But what makes this tree unique for the people of Meghalaya are its strong, buttressing roots. In the photo, you can see them growing along the side of the tree.

For centuries the people of this area have lived with and watched how this unique tree throws out its roots, anchoring its trunk into surrounding soil as it grows.

And they came up with an awesomely creative solution to their problem. Over time, patiently working with nature ... they began growing their own living root bridges.

Photo Source: [Ficus Elastica](#) (CC-Wikipedia)

## **Making roots into bridges**

The War-Khasis people, one of Meghalaya's indigenous groups, developed their own way of guiding the rubber tree's root systems across their rivers.

They use betel nut tree trunks, hallowed out and halved to guide the tree roots over the river they will eventually cross with a living bridge. With this guiding system, the Khasis people force the roots to grow straight until they reach the other side of the river.

When the roots touch ground, they grow deep into the soil, becoming a living anchor.

## The first bioneers?

Janine Benyus would really appreciate what the people of Meghalaya have been doing for 500 years.

Founder of the [Biomimicry Institute](#), she's part of the modern-day bioneer movement. People active in this movement look for ways to copy natural processes that serve human needs ... without harming the environment.

And that's exactly what Meghalaya's bioneering bridge builders have been doing for centuries ... solving an everyday problem.

It takes a decade or more to grow the bridge. During this time, the people tasked with this responsibility patiently coax, train and nurture the incredible expanding root systems of this tree until the bridge becomes strong enough to use.

A few of these living architectural creations are thought to be 500 years old. Some span 100 feet to the other side. The strong ones can hold up to 50 people at one time.

Some are even designed as double-deckers, like this one:



Photo: Double-decker living root bridge. Source: [Wikimedia Commons](#)

Watch the next video and discover the story of Harley and his niece Juliana. Harley passes his precious knowledge down through the generations by teaching Juliana how to grow the living bridges of Meghalaya.

### VIDEO [Meghalaya's Living Bridges](#)

Once fully functional, these exquisite bridges stand as powerful examples of what can be done in partnership with nature.

They are brilliant examples of sustainable living architecture in practice.

Faith spends most of her time at [FrontlineCopy.com](#) writing for the Green World. Connect with her on [Twitter](#), [Facebook](#), [Google+](#) and [LinkedIn](#).