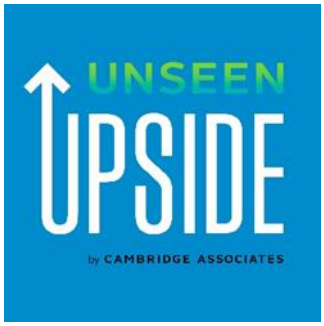

Season Two: Episode Two
Air: Planting 20M Trees by 2030
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Phillip Smart: We just stopped at this point, Luke, and if we turn around, we look at this old tree, and it's got this wonderful, gnarly mossy bowl, and I think if we were able to scamper up there and look inside, I'm sure you'd see big pockets of decaying wood, great habitat for beetles and birds and bats, an amazing link to our past.

Luke Charest: I'm Luke Charest, and I'm in the middle of the English woods.

As we walk further up a trail, we stop just in front of another big tree.

Emma Jones: in the forest we've got some lovely old, they're called Holloways, so there's just old tracks and it probably just marks the boundary between the forest and the farmland, possibly. So that's why we stood at this lovely old tree. Can you hear the woodpecker in the background?

So, we've got two multi-stems coming off this one and a lovely big burr on the bottom. So, if you kind of want to try and put your arms around it, probably it'd be like two or three people.

Phillip: It suggests that it's a tree of some age possibly, you know, three or 400 years old.

Luke: For most of human history, we've been cutting down trees to satisfy some of our most basic needs: building shelter, making goods, growing crops, raising cattle, and generating heat. So, for generations, there's typically been more value in cutting down trees than protecting them or planting new ones.

But something profound is happening now – planting trees is becoming an area of increased focus because of all the environmental benefits they bring, mainly sequestering carbon dioxide from our atmosphere!

As investors, governments and businesses work on the advancement of carbon credit markets and the demand for climate solutions grows, many organizations are trying to move the needle. Here in the United Kingdom, the National Trust is working on planting 20 million trees by 2030. That's right, 20 million trees! Just like this giant one before me.

Phillip: It encourages you to stop and pause and admire and think, what was here in the past, what will be here in the future and how we can look after it.

Luke: From Cambridge Associates, this is Unseen Upside. And this season we're exploring investments that are protecting or enhancing life on our planet and talking to the people making it happen.

[SCENE CHANGE]

Luke: To learn about what it takes to plant 20 million trees in less than a decade, I put my boots - or like they say around here my wellies - on the ground and visited one of the National Trust properties called Killerton. It's located in the rural county of Devon, in southwest England. About a three-hour drive from London. And we began our journey early one morning with the help of two guides:

Phillip: Hi, I'm Phillip smart. I'm the general manager for the Killerton Estate with the National Trust.

Emma: Hello. My name's Emma Jones and I'm an area ranger for the Killington estate.

Luke: Killerton comprises nearly six and a half thousand acres of land and an 18th-century house surrounded by beautiful gardens.

Phillip: It's a mixture of farmland of orchard, of Parkland, and, of Woodland, currently today we've got around 18 farm tenants on the estate, that look after the majority of the land for us.

Luke: After a short walk, we emerge at a bucolic hillside pasture covered with grass and these knee-high greenish-white tubes.

So now, are these, some of the trees that have been planted already?

Phillip: They are, these would have all been planted this winter.

Emma: So, um, we've come into Ashclyst Farm and we've entered into what was a lovely pasture field up until beginning of last year. And we were awarded, some money as part of the Green Recovery Challenge Fund to transform these fields here into wood pasture.

Luke: The green recovery challenge is a fund set up by the British Government to kick-start environmental renewal while creating and retaining local jobs like nature recovery rangers or land project managers for example.

Emma: In a really simplistic view is trying to bring trees into the field here and then we're going to open the Woodland and have grazing and pasture in the Woodlands. So, we're trying to blur these two boundaries and then you have grazing animals in those two environments to just sort of, um, mix up the habitats and diversity.

Luke: All around the area we can see these tubes sticking up from the ground with what looks like burlap coverings at the base.

Emma: In each of those green tubes, we've got a lovely tree planted. So, we've gone for sort of Oak, uh, predominance here, but we've got Hazel and thorn and other shrubs are growing there.

Luke: Emma points out some smaller square fenced-off areas, which also contain trees.

Emma: and they will grow into nice open-grown structure trees sort of have bigger bows on them, bigger arms sticking out.

Luke: This field is just one example of what's been taking place in the last year in the area. At the Killerton house, Phillip's office is full of maps, documents, and all sorts of evidence of the gigantic task at hand.

Phillip: We've been, busy planting trees over the winter. Tree planting is going to feature really quite heavily because of the importance of putting back trees for nature.

And obviously of sequestering carbon, and we can do that through a variety of methods. We can do it as close canopy Woodland. We can do it as open-grown trees. In fields to create more of a Parkland setting, we can do that through recreating hedgerows that have been removed and also through something called agroforestry.

Where you're planting trees, but in a sort of farmland setting. So, you might have a nut trees for instance, a walnuts or cobnuts, or filberts, amongst, grazed land below. So, sheep and cattle can come and graze the pasture below, but up above you've got a crop of, nuts or fruit.

Luke: Now with the tree planting. I think it'd be an understatement to say that it's ambitious, that the sheer amount of work you guys are doing. So, you know, before you got started, was there ever this moment of, oh boy, this is going to be a, quite an exercise.

Phillip: Yeah, it has been really ambitious obviously to plant, 70,000 trees in one winter. Logistics has been, quite incredible. But I think, the team have been massively, galvanized and motivated by the challenge ahead of us.

Luke: The National Trust in the UK is just one example of reforestation efforts. Other organizations are investing in similar strategies.

Mark Wishnie: This idea of forests contributing as a fundamental part of a global circular bio-economy, really I think it captured my imagination and has captured the imagination and the attention of policymakers and investors and others around the world.

Luke: Mark Wishnie spent years working at the Nature Conservancy, one of the largest environmental organizations on the planet, where he led a global forestry program supporting forest conservation, management, and policy across 76 countries.

Mark: And that really got me focused on the potential of well-managed forests to help mitigate climate change at large scales and not just forests, but the broader forest economy, because we know that when we manage forest sustainably, when we harvest in the right ways and replant, after we harvest and then take the wood that we harvest and use it in the right kinds of applications, the benefit of storing carbon in long live wood products or substituting wood products for more carbon-intensive alternative materials, like concrete and steel, those climate benefits, can over time even exceed the benefit of just having the forest.

Luke: Mark is the Chief Sustainability Officer and Head of a climate and impact-focused investment practice called Landscape Capital. Which is part of BTG Pactual's Timberland Investment Group.

Mark: Which has really focused on, taking the institutional platform that BTG Pactual has developed as one of the largest commercial sustainable forest managers in the world, and applying it to the specific challenge of how to maximize the climate mitigation benefit, the biodiversity benefit, the benefit for communities, for people, for nature of well-managed forests.

We've lost about a billion hectares of forest around the world. Over the last several centuries and, in many places, we are now, growing crops or raising cattle, or we've built our cities where there's forest used to be. But in some places, there are, opportunities to bring forest back to places where forest naturally occurred.

Luke: This is usually called reforestation, but Mark says there's another term we should consider:

Mark: Afforestation, is a term which generally, refers to putting trees where they don't naturally occur. So, for example, planting trees in the tallgrass prairies in the United States, Midwest or in grasslands in South Africa. So, afforestation actually means converting from one ecosystem to another.

Luke: This practice needs to be properly managed, otherwise it can result in a reduction of local biodiversity or the introduction of potentially invasive species.

Now, reforestation — which is the act of planting tree seeds or young trees in an area where there used to be a forest — can mean a few different things in the practical sense.

Mark: It can range from, planting trees, for commercial purposes or planting trees, to restore ecosystem services or some mix of those two or in many cases, actually the best way to reforest is just to allow the forest to grow back on its own through a process called natural regeneration. Forest can grow back naturally, if we just remove whatever the source of disturbance is that's preventing the forest from being there in the first place. So, you can imagine someone cuts down a forest, converts that to a cattle pasture, and grazes cattle. Well, the grazing cattle keep down that vegetation and anything that would naturally seed in will get damaged or eaten by the cattle. The rancher will clear that field to keep brush from growing in. But if we just take off the cattle, put a fence around it. In many cases, the forest will naturally grow back.

So, when we restore a forest to a place where there used to be a forest in the past, we're almost always increasing the carbon stock of that place. So, we're, we're sequestering more carbon from the atmosphere storing it an additional biomass, just because trees big and they store a lot of carbon.

We're often restoring habitat and habitat connectivity. We know that there are animals and plants and insects that need forest interiors. Others that needs to live at forest edges. And so as we reforest, we not just bring back forest habitat, but we bring back a diversity of habitats, across the landscape that we're working in.

Luke: Forests reduce erosion, help improve water quality, provide shade.

Mark: And then of course, for people, there are all kinds of benefits that we derive from forests, the economic benefits of having forest products, but, also the recreational benefits in many places the forest have a significant cultural importance.

So, we can bring back all of these values when we have well-managed forests that are well-integrated into broader landscapes.

Luke: Trees reign supreme at capturing carbon dioxide through the process of photosynthesis.

Mark: Which means that they take all that CO2 out of the atmosphere, nutrients from the soil, water and sunlight and they release oxygen and they create starches and sugars and all of the compounds that they need to live and grow. And so as they do that, they accumulate carbon over time. And a lot of that carbon is stored in their wood.

Luke: As trees grow, their trunk, stems, branches, their leaves, all their structures are largely made from carbon.

Mark: So, it's not, sequestering carbon for purposes of addressing climate change.

It's sequestering carbon out of the atmosphere, because that's how it makes, all of its tissues and of the things that it needs, to live and to grow, and when we're looking at a forest, we tend to look up because we see these big tall trees and these beautiful leaves all of the vegetation and the birds in the air. But there's also an awful lot going on underground trees can have immense root systems. And we know less about all of the, carbon sequestration and the ecology of below the surface, because it's harder to study, but in some ecosystems, there's far more carbon stored below ground and roots organic matter in the soil than what we can see above ground.

Luke: Now, there are thousands of tree species across our planet. Some grow bigger and some grow faster than others — two factors that are important when thinking about climate change.

Mark: A lot of the world, the global community is focused on this 2030 deadline.

Luke: In 2018 the UN's Intergovernmental Panel on Climate Change published a report that says that "global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate." Earmarking 2030 as the ideal deadline to at least cut in half our global emissions.

Mark: The goal is if we don't limit emissions to a certain level by 2030, then we may, speed past some tipping points, that it may be very hard to go back to in the future. And what matters in the atmosphere are the net emissions, right? So, what matters for the atmosphere is how much we emit less, how much we absorb back out of the atmosphere. And so when we plant trees, if they grow quickly between now and 2030, especially, that's really helpful to the global climate balance.

When we look around the world, the closer you get to the equator, the faster things grow, and some of the fastest places in the world to grow trees are in some of the key tree-growing regions in Latin America.

Luke: And that's part of why BTG is focused on this region. They think an institutional scale investment in sustainable forestry can make an outsized difference in the near future.

Mark: In the time it might take us to grow a tree, to make, wooden boards for a table in the Southeastern United States. We might be able to grow two cycles of trees in Brazil or even three.

Luke: So that's around 2 to 3 times the carbon sequestered out of the atmosphere in some of these places.

Mark: It's also a place in the world where we know more about forest restoration than almost anywhere else, so there's a whole lot of knowledge that we can take advantage of. And it's also a place where the opportunity set is very large. If we just think about Brazil Uruguay and Chile, between the three of them they have nearly 200 million, hectares, 500 million acres of cattle pasture, maybe two-thirds or three-quarters of that was once forest.

So, when we think about a place where there has been very large-scale land-use change and where the land-use change has been to another land use, which is in many cases, marginally, economically productive. So, a place where actually a reforestation strategy could compete economically. Latin America shoots to the top of that list.

Luke: Mark's team focuses on acquiring land that's been deforested and converting it back to a mix of natural forest and commercial tree farms. Before taking on new land, they do a thorough study of the environmental condition of the property, as well as its social context, and in most cases, they hire their staff locally. And they expect to plant more than 200 million trees!

Mark: in this strategy, we're thinking at least 15 years in order to go through the entire process of acquiring that property, restoring the natural forest, converting the remainder to commercially tree farmers that are managed on a sustainable basis, and then helping to build the value chains that actually then bring those trees from the tree farm all the way to an end market.

And in that value chain participation, the focus is really on producing products that generate some of those additional climate benefits. So, focus on products that store carbon for long periods of time, you think a wooden furniture, wooden flooring, wooden doors, mass timber materials that can be used to build tall buildings out of wood.

And then materials or products that substitute for carbon-intensive alternatives. So mass timber is a great example. When we build a tall building out of wood, we avoid a lot of steel and concrete, which if steel and concrete were their own country, they'd be the third-largest emitter in the world after the US and China.

Luke: So, using more wood as a material means less carbon in the atmosphere.

Mark: It's true that planting trees can help, mitigate climate change. But planting one tree is great. planting 10 trees is even better. And that for many of us as individuals is all we can think about doing, but the reality is that for climate, it won't make a difference until we can start planting hundreds of millions of trees**.**

Luke: Hundreds of millions of trees. Now according to the World Economic Forum, there are about 3 trillion trees on our planet, about half as many as 12,000 years ago when human civilization began, but not all is gloom because actually today we have more trees than we had just 100 years ago, in part because of conservation efforts and responsible tree growing.

Mark: And so this strategy we designed it in part because we thought it was a strategy that could really scale.

So, we can ensure regenerating that net positive impact on biodiversity, on nature, on water. And we can generate a financial return that supports the investment thesis, but also, supports the economic development of local communities.

Luke: These days you hear a lot about carbon offsets and carbon credits. Suffice it to say, we could spend an entire podcast season talking about those. Put simply, they're a method for reducing CO2 by allowing companies or institutions to buy an amount of carbon that's being removed from the atmosphere to compensate for emissions they're producing elsewhere.

And there are different ways to generate carbon offsets

Mark: For example, switching from, coal-powered electricity to solar power electricity because, uh, when we generate electricity with solar power, we don't emit nothing because we have to manufacture and maintain the panels. But we emit far less than if we generate electricity from coal, you can also generate carbon offsets from planting trees or from protecting forests that might otherwise be cut down.

[SCENE CHANGE]

Annachiara Marcandalli: I grew up in Milan, which yes is an industrial city but It's an hour from the Alps. That means I grew up doing a lot of trekking and a lot of skiing. And there is nothing as majestic and beautiful as mountains.

Luke: My colleague Annachiara Marcandalli is a partner in the London office of Cambridge Associates. She's been investing in the world of Environmental, Social, and Governance or (ESG) for short, for 20 years.

Annachiara: For the first 10 years, ESG was more about value alignment and less about proactive investment, and the actors asking tend to be boards. The activity tended to be more exclusionary or risk-mitigating. That's changed completely. For the last 10 years, its investment committees who have FOMO; they fear missing out because you can start seeing performance evidence that the inclusion of non-financial factors in the analysis and in the decision-making produces better returns.

It's not definitive evidence because there's no definitive evidence about anything by the way in investments.

Luke: Many investors are justifiably wary of funds getting suddenly branded as sustainable or something comparable.

Annachiara: Part of the skepticism that investors have is, wait a minute if everybody's doing this, who's really good at it and who's just pretending.

So, there is a natural and healthy skepticism towards this rush that investment managers have towards this big new trend. It happens all the time with every new, big trend.

And there's nothing like good old hard-won due diligence. When hedge funds were popular, there are a lot of good hedge funds, a lot of very bad ones. We have a lot of excitement around private investments. There's a lot of very bad private equity managers, so you need to do the hard work.

Luke: And skepticism is not the only deterrence, Annachiara says that some still hold the idea that ESG factors are not hard factors.

Annachiara: This sense that incorporation of non-financial factors for some reason they're not serious. That's a mistake, that's actually a cognitive dissonance that people have to get over because they are very material and we have plenty of cases, both on the upside and on the downside of corporations profits being enormously impacted by either ESG excellence or lack thereof.

Uh, the integration of ESG factors has started, but hasn't finished. So that, to me spells the fact that there's uncertainty around it. There are questions, there's lack of data, there's lack of proof. Well, that to me, isn't a problem. It's an opportunity. For those who are better equipped to gather information, use the information better than others to earn better returns.

I am a big believer in first-mover advantage, studying economics taught me that you get, returns greater than your peers. If you do something different from your peers, there's no way of getting greater returns by doing what everybody else is doing. So, you need to do doing something different and something that gives you an edge.

Luke: While many investors debate the right path for their institutions, there are first movers out there taking bold action. Remember Killerton? The place where we were at the beginning of the story. It is a National Trust property.

Peter Vermeulen: The National Trust is an independent charity. It was set up in 1895.

Luke: Peter Vermeulen is their chief financial officer.

Peter: The formal purpose of the organization is to look after places of historic interest or natural beauty permanently for the benefit of the nation across England, Wales and Northern Ireland. In 2022, if you had to use three words to describe a company, if that existed as such, you'd say it is nature, history and beauty.

Luke: I'm curious, like how has the trust evolved over the years? Could you give us a sense of the sheer scale of the physical footprint that you all have? Like how big is the national trust today?

Peter: Yeah, it's grown tremendously. So, it started with a gift of one plot of land. As of today, we look after 780 miles of coastline over 250,000 hectares of land and care for just over 500 historic houses, castles, ancient monuments, gardens, parks, and nature reserves.

Luke: The National Trust has over 5 million members.

Peter: If you want to put a people lens on it. 28 million visits to our pay for entry properties and more than 200 million visits a year to our outdoor spaces as it were. And all of that is

delivered by around 10,000 staff and supported by even more, actually just over 50,000 volunteers.

Luke: Now clearly in the trusts work, sustainability is a lot more close to heart, you guys feel this at a level that I think companies that are making pledges, they care about it, but this is your day-to-day life operating all of these properties in nature.

Peter: It is part of our DNA. It always has been, we're a cultural as well as a natural heritage charity as it were. So, we'd always been paying a lot of attention. So, we launched a scheme to derive 50% of our energy from renewable sources on our own land. Mostly hydro and biomass that scheme is, Now, complete. And in the same way, as, as we want to support certain action, there are certain things which we believe shouldn't be happening. So, for example, we took a very public stance around not allowing fracking activity to happen on our own land or adjacent lands that would see fracking or underneath our landholding.

And so therefore it was a logical next step to then think about actually, what does that mean for our investment portfolio? We have about 1.5 billion pounds worth of investing supporting our cause about $2 billion dollars. And we needed to think about actually what are the values that are embedded in that investment portfolio. And how do those align effectively with the actions that we take on the ground ourselves.

So, when we spoke out against fracking activity on our own land, it stood to reason that actually we shouldn't be holding fossil fuel investments ourselves.

Luke: So, three years ago, The National Trust publicly divested from fossil fuel holdings.

Peter: The next step for us then was to think about how do we as an organization, become net-zero. And our original thought was to align it effectively with Paris objectives.

Luke: Inked in 2015, and adopted by 196 parties, the Paris Agreement's main goal was to limit global warming to well below 2 degrees Celsius, hopefully to 1.5, compared to pre-industrial levels. Annachiara says that to get there, institutions need to apply a holistic approach.

Annachiara: Doing a net-zero portfolio, generally for 2050, you need to fire everything at it. You need to be thinking asset allocation, you need to be reducing your carbon footprint, you need to engage your managers, you need to be investing in climate solutions.

Luke: And while most companies and governments are aiming to be net-zero by 2050, The National Trust is boldly committing to be net-zero by 2030!

Annachiara: If you're trying to do this 20 years ahead of everybody else. Then you have to take that and really supercharge it, and you have to be creative about thinking about the fact that you're trying to do this 20 years ahead of everybody else, so you will need to have carbon sinks.

Luke: You've had the privilege of working with them for some time. And there's only so much that you can kind of push folks to do, but clearly, there's some real, authentic need for this conservation charity to align their portfolio with their mission. So like, what learnings can you have from an institution like the National Trust.

Annachiara: I think that the integrity that they're applying to their operations, to their investment strategy and into the organization as a whole, rather than sometimes you think, oh goodness, this is actually tying ourselves in knots. It actually gives them such a sense of purpose and such a determination that it's inspiring.

Patient long-term capital has a competitive advantage in the market. I know it sounds trite, but it's true because there's so much competition at the shorter end. What you were doing is you're saying I am going to ignore all of that and I'm going to keep my eye on the ball because they're so aligned as an institution, it's inspiring. It also makes them an incredible partner. And I think a really incredible investor.

Peter: Given that climate change is the biggest risk to the cultural, natural heritage that we look after, we felt we needed to really lead in this space.

Luke: Peter Vermeulen again.

Peter: So, we set ourselves the harder objective of achieving that net-zero status by 2030, across a portfolio of activity. Whether that's agricultural letter, state, visitor business, or investments.

Luke: I'll say that that's a very ambitious program, I think, there's not a lot of folks that have signed themselves up for that ambitious a ramp to getting to net-zero. So, what were those conversations or was there excitement around trying to get to this goal faster than others.

Peter: Some of the planning for this work had started some years ago already. We have been in the business of reforesting for our entire sort of life cycle, 127 years. But I would say it is increasingly getting easier to have those kinds of conversations. People recognize that actually nature's far more important than we had previously realized. So increasingly planners, landowners recognize that actually we need to make a step change in that space.

I think the first reaction people probably had was a slight nervousness and concern. Because one doesn't necessarily immediately know exactly how one's going to get to net-zero by 2030. I mean, the same is true for people who aim for 2050, but it feels further along, so one feels more comfortable with not necessarily having all the answers.

When you bring a timeline forward to 2030, it's a bit more important. You sort of know exactly how you're going to do it as it were. We had some good carbon audits data.

Luke: Carbon audits are the process of calculating all the carbon emissions a company or institution emits.

Peter: So, we understood exactly what the size of our footprint was, and where it occurred. But we didn't know all of the solutions that we were going to need at the point of making the pledge. But what we did know was that we absolutely have to try and get there by 2030. And we knew that we had the organizational energy and ambition to try and do that.

Luke: But carbon audits can be a complex exercise for institutions like The National Trust.

Peter: Especially given the range of activities we have, from agricultural, retail, operations, food, and beverage, and an investment portfolio. Our journey started working with a consultancy to help us understand actually, what is the footprint of each of those different kinds of operations.

And then we brought that into effectively upskill our own staff, to be able to audit the footprint of all of our activities. So, we then go out and we look for peer-reviewed research to help us understand how our activities break down into components and how all of those components we can effectively carbon assess as it were.

Luke: A huge component of your efforts to get net-zero by 2030, is this 20 million trees program. How did you all come to thinking, this would be a really great strategy to help to get to that 2030 pledge.

Peter: So as a nature conservation charity, we always reforest and have been doing so during the history of our organization, but what we came to realize was that we were not able to reduce our carbon footprint sufficiently to get to net-zero by effectively eliminating the carbon emitted as it were.

So, we need to think about carbon sequestration and that's when the idea came along around actually, how do we do that? And when we did our calculations, we recognized that in order for us to get a net-zero, we really needed to think about planting 20 million trees over the next 10 years to hit that 2030 target.

Luke: How do you even begin to think about where to plant 20 million trees? It's a big country you're in, but 20 million trees is not nothing.

Peter: For us, it's not just about trees. It's about the habitat and the biodiversity in those landscapes. So, it's not about just tree density it's about, creating more nature, and tree planting, being a component of that.

What we did was an audit of our estate to understand actually where do we hold land, and where do we have actually farmers who want to work with us on some of those initiatives, and, generate effectively or create payments for nature outcomes for them as well. By doing that audit, we found 17 priority places where we recognized actually we could do an immense amount of tree planting, create more nature, create more biodiversity and achieve our 20 million goal.

Luke: You're not selling the carbon credits generated through this reforestation effort. You could imagine that this much planting of trees generates quite an amount of credits, why are you keeping those and what's the strategy.

Peter: Our strategy is not a for-profit strategy. It's a for-purpose strategy. We want to get to net-zero ourselves as an organization. And in order to do that, we have to demonstrate that we've sequestered an amount of carbon. So, we have to retain it. And the principle is applied to our own tree planting to offset the impact of our physical operations, on this planet. But it also extends to our investment portfolio where we're looking to invest in forestry funds and there too, we'll make some money from some of the timber sales, but we'll actually retain the credits to offset the residual carbon footprint of the investment portfolio.

Luke: Peter says he's enthusiastic about setting a target well ahead of everyone else.

Peter: And it is deliberately done so, to be able to demonstrate to others that it can be done, you can take a lot of action the day of today already. But the other thing I'm really looking forward to is once we get to our own net-zero target is in helping others effectively get on that path because ultimately none of this will work just by us doing the work. It will only work if every organization is bending its mind to how do we become net-zero.

[SCENE CHANGE]

Phillip: We can maybe hop over the fence there and walk down the Holloway, go and explore.

Luke: Back at Killerton we continued our hike through the woods.

Climbing over the fence.

All right so we're climbing down this little windy path that looks like a tiny old river, but it's actually a little Holloway ducking beneath the trees and trying to stay out of the mud.

It's hard not to feel like a little kid on an adventure here. You're just winding through these different paths.

After a good 20-minute hike, we came out of the forest and into an open field with grass everywhere.

Emma: We will have some extensive grazing in here, which means just maybe a handful of cows in here for short periods of time. And then what we're hoping is going to happen is all of the trees around the forage edge will seed out into this field and we'll get what we call natural succession happening.

Luke: Planting trees is just one step. A lot of other work is required too. There are fences to protect the growing trees.

Phillip: So, we want to keep the deer out because they'd obviously browse the trees and knit the tops out.

Luke: And smaller tree guards to ward off other creatures.

Phillip: uh, to stop the rabbits. So, the rabbits will get very hungry and other small mammals, voles and things like that.

And then around the base of the tree, you can see there's a sort of, a carpet almost, in this case, because we're an organic pasture and we want to minimize the use of, manmade chemicals. We use this carpet or mulch mat to suppress the weeds in the grass and allow the tree more moisture and nutrients to be able to grow strong and established and getaway.

Luke: Now, how fast will, will these grow this one's, you know, almost up to my waist now, how quickly will these little saplings grow.

Phillip: So, one of the reasons why we plant trees when they're young, sometimes they're two or maybe three-year-old trees, they're specially grown in, uh, in nurseries, their root to shoot ratio is really quite good.

So, it's got lots of root in comparison to the amount of shoot that it's got. So that means that it will hopefully establish quickly. And this tree, I expect we'll probably put on six to nine inches in its first year. So maybe it will be up to your, stomach. Uh, and then hopefully it might even put on, a foot next year.

So, if we come back in three years, it will be up to our head height. Definitely. And it's going to start to look like a Woodland quite quickly.

Luke: Phillip says volunteers and contractors took about 5 days to plant the 1,500 trees where we're standing.

Phillip: You know, we could have just left the field and allowed natural succession, to have its hand, but that's going to take time, so we're giving nature a helping hand here, really trying to get an advanced start and to make sure that we get a good mixture of species, which is obviously going to be good for wildlife.

Emma: In total, we planted about 70,000 trees. So, if you think in this field, we've got, you know, 1,500 and then ramped that up. There's a lot of tree planting that's going on

Luke: Is it a little surreal when you think about that, you know, less than a year you've planted 70,000 trees across this property?

Emma: Yeah, it really is. It's been a roller coaster of, um, challenges for us and to be able to come out and share it with you today is amazing because it's really a time for reflection for us to go look at what we've done and we're really proud of it. And it's going to be here for the future and for all the generations to come and visit.

Phillip: you know, the good news is that we've planted 70,000 trees this winter. The bad news is that we've got to do that again this year and next year and the following year, you know, for the next 8 to 10 years, to really kind of make the difference that we want to make here and to provide that space for nature and to obviously tackle the climate emergency. And as these little saplings grow into big strong trees, they are going to be taking all that carbon out of the atmosphere. So, lots more tree planting, lots more tree tubes to get into fields, but we're up for the challenge aren't we,

Emma: We definitely are.

[CREDITS]

Luke: If you want to learn more about reforestation or sustainable forestry, please visit us at cambridgeassociates dot com slash unseen upside or check out the show notes. Stay tuned for more upcoming episodes and if you like what you're hearing, leave us a review and tell your friends and colleagues.

At Cambridge Associates, our podcast team is led by me Luke Charest, Hillary Ribaudo, and Brittany Thurman.

From PRX Productions, Sandra Lopez-Monsalve is our producer, Ari Daniel is our editor and Courtney Fleurantin [FLOOR-AN-TEEN] is our associate producer. This episode was mixed by Terence Bernardo. The executive producer of PRX Productions is Jocelyn Gonzales.

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Before you go, one of my colleagues has an important message about the contents of this podcast.

[DISCLOSURE]

to that listener, nor to constitute such person a client of any Cambridge Associates entity.