



Plan-A.show Episode 2: An inaugural Factoid Friday about the sustainability of private land ownership and use, good and bad

Introduction

[00:00:00] **Eirik:** Hello, and welcome to Plan-A's Factoid Fridays. This is the podcast where Scott, Niels and I present and talk about interesting facts and topics we have come across in recent weeks that are connected to sustainability and "Enkelfähigkeit" in general. As it happens, this inaugural episode of Factoid Fridays, and we hope it will be a regular thing, has a theme, which is land usage.

[00:00:29] So without further ado, let's get stuck into it. And I think, Niels, you were going to kick us off.

Private accumulation of farmland

[00:00:35] **Niels:** So I came up on a weird headline, which was that Bill Gates is now the largest private owner of farmland in the US. Now that sounds strange. What has Bill Gates to do with farming?

[00:00:56] It turns out that he owns and this is 2019, so it might be more by now, at that time he owned an area of land larger than Bahrain, Singapore or Barbados. But this is all over the US. So this is not one continuous piece of land.

[00:01:10] Because you have to buy these by lot, oftentimes at auction. And then the goal is to purchase adjacent lots as well. So you can have a bigger farm. And that's why he purchased all of these through various shell companies. So nowhere does it say "Bill Gates purchased this lot of land". It's all semi-anonymous so that when an auction goes up for another piece of land, the farmers don't realize, oh, it's the same guy, it's worth more to him to buy adjacent lots. They think it's all micro-transactions.

[00:01:41] Then I started looking into why would he do that? Is it connected to his foundation? Is he trying to improve food supply, combat climate change, whatever? And it's all very secretive, but he did a Reddit AMA a while ago, an "Ask Me Anything", where he said "my investment group chose to do this. It is not connected to climate. The agriculture sector is important. With more productive seeds, we can avoid deforestation and have Africa deal with the climate difficulty they already face. It is unclear how cheap biofuels can be, but if they are cheap, it can solve the aviation and truck emissions". End of quote.

[00:02:19] So the second sentence is "it's not connected to climate" and then there's four sentences to do with climate. So it's really a bit unclear exactly what his goals are. But he wants to make money with it, at the end of the day.

[00:02:31] And this just kicked off a whole bunch of questions, which we can get into. And we should probably have an episode at some future point in time about agriculture in general, because it's a huge topic.

[00:02:43] There's all sorts of arguments against monopolistic use of land against these mega farms. Firstly, it's more accumulation of wealth. Because the farmers are now basically renters on their own land. So they can not accumulate wealth. It's not multi-generational for them anymore.

[00:02:57] And a very interesting aspect of consolidated farms is that they tend to have fixed contracts with supermarkets and exporters of food. So they are specialized. It's a farm that produces exactly that amount of exactly that crop for 10 years. It makes them less nimble and agile. And it makes the regional food supply chain actually less resilient. And we've seen this in the US already during COVID. Where the



local food supply chain cannot react quickly, or not at all, because you can't escape those contracts. If suddenly there's a need for increased production of wheat, let's say, but you have already sold your soybeans 10 years into the future, you know, no dice.

[00:03:38] What I thought was an interesting counter-example, and then I close this out, is I get a, like a veggie box from my local farmer once a week. They literally have a key to the door of my house and they just put it into the cellar and I grab it from there in the mornings. And they recently, in their newsletter, said they have doubled their land area.

[00:03:57] They've purchased more land, adjacent land. But they will not produce a single head of lettuce more. The only reason they bought more land, which is not cheap, is to change their crop rotation. It turns out that there is certain plants you can grow in between the plants you sell, the productive crops, that sort of re-fertilize the land naturally. And the whole reason for buying all this land is to reduce their use of fertilizers, or additional fertilizers, which of course have issues with runoff and it gets into the water supply and so on and so forth.

[00:04:30] **Eirik:** Well a lot to unpack, but going back to Bill Gates purchasing land, I think it's really quite telling that he came out and said that it was his investment company or advisors. So presumably, there's a investment council that sits behind those decisions and makes them with some sort of long-term, rather than short-term investment thinking behind that, which possibly even denotes a shift in what people think will pay dividends going forward. And it's absolutely crazy that an individual with so much wealth can then control that much land.

[00:05:05] **Niels:** The great thing from an investing perspective about agricultural land is, firstly, they're not making more of it. So it's scarce and getting more scarce. If you take into account climate change, there's gonna be less and less land where you can actually grow these crops. And the dividends or the value growth of agricultural land is fully divorced from the stock market. So if you have a huge portfolio that you wish to diversify, it's the perfect diversification, basically.

[00:05:32] **Scott:** This is for me like an educational episode, because I don't know anything about the goings on at that level. It doesn't seem like it's ever anything that would benefit us as humans beings in general. And I'm pretty skeptical about all accumulation of wealth and control over such essential things as where does our food come from. So I'm listening and making notes.

[00:06:01] One of the things that I thought was really interesting is I saw a report on some initiatives that are being taken pretty much all over the world to counteract this fertilization thing. So they're re-introducing practices that were, 2,000 years ago, normal and herding ducks through fields. And then they'll come through with the next animal group that gives this part of its fertilization. And rotating crops, that's nothing new. That's absolutely nothing new.

[00:06:28] What's new about that, and I see kind of a split here in the innovation type. What is the true well-meant innovation and what is the "I am going for every cent you have" innovation, right? That's kind of where I see this whole thing going. As always, you're gonna have the superheroes and then you're gonna have the supervillains. And, as usually, in the middle of that song, you're sometimes not quite sure who is who.

[00:06:54] **Eirik:** I think it's a good point, that you make, about things like this not always being clear cut.

Fossil fuel companies reforesting

[00:07:03] **Eirik:** That's actually a perfect transition into something that I came across which was an opinion piece article that was published by George Monbiot in The Guardian where he picks up on the topic of carbon offsetting.



[00:07:16] That's a really good example of things not being entirely clear cut. Similarly to Bill Gates' land ownership where you could kind of go, well, it could have some positive effects or positive impacts with positive initiatives on these land holdings that he has, or it could not. It really depends how it's used.

[00:07:36] So, in this article, this was particularly about how large and very wealthy companies are using, what he deems, the pretense of nature based solutions to enact a carbon land grab. There are potential parallels to Bill Gates in the sense that they are strategic purchases of large swaths of land. And they are then being used in ways that enable companies to continue with their businesses as usual carbon outputs.

[00:08:10] One of the examples he cites is the fossil fuel company Shell who have a membership scheme called "Drive Carbon Neutral". It's targeted to businesses and It's used to tell businesses that by buying fuel with their loyalty card, and here I quote, "the 'unavoidable' emissions from their [...] vehicles can be offset 'through Shell's global portfolio of nature-based solution projects'". So essentially it's assuring customers that by joining this program, by paying the membership fee or whatever you have to pay, I didn't look into that, to be clear, you don't have to change. And this is another quote by the program, "you don't even have to change the way you work".

[00:08:54] So it's really enforcing this business as usual status quo, specifically now to do with fossil fuels, use them, continue driving with your vehicles as you have been. That's absolutely fine because we, Shell, are doing something about it.

[00:09:09] Interestingly enough, Shell made claims like this in adverts in the Netherlands and they were struck down or disallowed or discontinued by the nation's advertising watchdog.

[00:09:22] And so to round that off, there are positive examples. So Shell is spending around about £5 million in Scotland to sort of extend a forest called Glengarry forest. And when you look at that on its own, you kind of think, well, this is definitely a positive initiative. They are doing something for a local environment.

[00:09:41] And there's a lot of initiatives like this run by other companies. There are programs in the Republic of Congo and Suriname run by the French fossil fuel company Total or Total. So there's a lot of examples that you can find when you dig into that.

[00:09:57] Collectively, when you then dig down into it, these initiatives don't actually seem to have the positive impact that they suggest. Simply because they are used to subsidize or greenwash a company's current output. So the business as usual that I've been referring to.

[00:10:16] And then when you actually do think of it in terms of a large conglomerate coming into specific areas, whether that be Scotland or countries in Africa, where they suddenly spend a lot of money by either buying land or supporting government initiatives, large scale initiatives, with specific land and land use, you realize that, actually, that is potentially outpricing local ownership and local initiatives and smaller initiatives. Which, I would then argue, are also key when you think about land use in terms of long-term sustainability and making land use "enkelfähig". So, actually, overall they are more likely to have a negative impact than a positive one.

[00:11:00] To wrap up the subject, one of the key things, and this is connected to the Bill Gates effort as well, that Niels mentioned earlier, is to understand the motivation that is driving and, perhaps more importantly, what is financing, land purchases and the type of usage that the land has.

[00:11:18] **Scott:** It's really absurd to me that either only now the whole land grab thing is something that's accumulating, or we're only discussing like every other generation would, the elite that's grabbing land.

[00:11:35] I have a very deep and personal relationship to what you just said, yeah, and what you were talking about. And I don't know if you guys know this about me, but I love punk music. There's a song,



there's a band, the best punk band, the best nineties punk band there was, called Propagandhi. It's a Canadian band. And I'm gonna try and read part of their lyrics. So the song starts off and it's just like a report, like somebody reading a report in the news:

[00:12:00] "People have the right to the truth. Unvarnished. Even uncomfortable. But never subjugated to a cause, however noble or well-meaning. They have the right to clear thinking. Slogans, boycotts and protests don't offer answers. It's been suggested that Shell should pull out of developing nations altogether. The oil would certainly continue flowing. The business would continue operating. The vast majority of the employees would remain in place. But the sound and ethical business practices synonymous with Shell, the environmental investments, the tens of millions of dollars spent on community programs would all be lost. Again, it's the people of developing nations that would hurt. It's easy enough to sit in your comfortable homes in the West, calling for sanctions and boycotts against a developing country. But you have to be sure that knee-jerk reactions won't do..."

[00:12:55] It goes on and on like that. And I'm listening to this like oh my God. This is deep. All I'm saying is the narrative will never change. And I'm sure if you look back 20 years before that, and 200 years before that, and 2,000 years before that, the narrative remains the same. They're saying the same thing and they're doing the same thing. Shell, McDonald's, cigarette companies, it's all the same narrative: "I know we're bad. But maybe a little less bad right now. Because we killed a thousand people and now we gave birth to ten." Sorry, that was a rant. But that's my answer to whatever you wish.

[00:13:40] **Niels:** What Shell is doing doesn't sound like a Plan-A to me. It sounds more like a plan C, which is, yeah, we have a problem, but we also have some way of addressing it potentially, maybe. What I'm wondering, Eirik, clearly if the purpose of reforestation is carbon capture, there's a time delay. You plant a tree, it takes 30 years or whatever for that tree to capture X amount of carbon. And if they wanna offset the immediate emissions, do they take that into account somehow?

[00:14:05] **Eirik:** Good question. I didn't come across that. So I can't tell you anything or I cannot deny or confirm whether they address that.

[00:14:14] **Niels:** Mathematically, it's not possible, right?

[00:14:17] **Eirik:** Exactly. I do suspect that the initiative is abstract enough that the direct correlation of today's emissions may not necessarily, you know, it's creative carbon accounting.

[00:14:30] **Scott:** Wouldn't you think that they're just outright purchasing what they need to offset it, but offsetting their costs by making it like a team effort kind of thing. It just seems really like they get a bulk discount because they're buying the most of anybody ever. And then they're just reselling it to this group of companies that are buying it from them at a higher price. And it's all being packed in this "oh, look at what we're doing good". What is 5 million for them? It's nothing.

[00:14:59] **Eirik:** Yeah. Petty change.

[00:15:01] **Scott:** Yeah. It's nothing. It's nothing to offset the damage that they probably did in that one specific place.

[00:15:07] **Niels:** I think we have to judge it by starting today. If we go off and say, "oh, this has been a bad company for years and years and years, so anything they do now, we see negatively", that's not gonna get us very far, because then we basically have to restart all the companies in the world to start off at morality zero as it were. So I think we ought to judge these programs on their own merit and see if they're useful or not.

[00:15:30] **Scott:** Niels, honestly, if they wrote the sentence "and you don't even have to change the way you work", that's not even hiding it. That, in my opinion, deserves swift and immediate judgment.



[00:15:43] **Niels:** Sure. But I think we should focus our judgment on that and not say, "oh well, but also 30 years ago, they're horrible anyway". So I don't think the solution can be that we have to just outright sort of dissolve hundreds and hundreds of companies worldwide. We need to be open to the possibility that a company could, sort of, draw a line in the sand and say "from now on, we do the right thing".

[00:16:06] And I'm with you that this one sentence is horrible and kind of exposes their motivation behind this entire thing. I just didn't want to go off into the past too much. But yeah, that sentence rubbed me the wrong way also.

[00:16:19] I also do wonder, the cynic in me wonders, if these forests are in Shell's name, whether that helps them in the cap and trade. So does that give them carbon credits? For their own activities.

[00:16:32] **Eirik:** It touches on a likely problem with carbon offsetting, which is the speculation with credits which probably is as another subject that is worthwhile to unpack in more detail going forward.

A role for government?

[00:16:45] **Scott:** Can I ask a question?

[00:16:49] **Eirik:** Go on.

[00:16:50] **Scott:** This is something that I just absolutely have no idea if what I'm about to ask even exists, but Niels, you're a big proponent, if I'm correct, for governmental regulation, right? So there's a place for it and there's not enough of it. And this is part of a solution that you would bring to the table, right? What you're saying is we shouldn't judge someone on their track record necessarily and solely, but I think your suspicion of them should have levels based on their track record. And I'm just wondering whether you can limit them in their business practices or maybe tax them higher on specific business practices. I have no idea, like what the offsetting regulation would look like there.

[00:17:32] **Niels:** So there's two aspects to this. The first is for companies, as far as the business that companies are already doing, there is actually a lot that, legally, you cannot prevent them from doing. Because of investor protection, which is even written into lots of trade agreements.

[00:17:47] So if you are Shell, let's just say, and you have explored certain oil fields, and you've built your little platforms there. Then the government can not, in many jurisdictions, come in and take them away from them. They would have to reimburse them for any money they've already spent on the oilfield exploration and so on. And also for future profits that the company can no longer realize because you have told them you cannot get oil from that specific oilfield anymore. So as far as "punishing" quote, unquote, individual companies, a lot of that is just simply not possible.

[00:18:20] What I think is the most elegant solution is, you can just tax something, right? So you could just tax any fossil fuel that you get out of the earth. At the very moment, you get it out of the earth, you could slap a tax on it. That's another approach than saying, "oh, we're now going to tax petrol higher for cars; we're going to tax aviation fuel higher; we are going to tax coal-fired power plants higher" and so on. It's a lot easier to just tax the fuel itself, the very source, and then everything else, if you model it out, everything else sorts itself out automatically.

[00:18:55] Because immediately the electricity from coal gets more expensive, anyway, because the coal is more expensive; and the jet fuel gets more expensive; and the petrol gets more expensive; and diesel gets more expensive. And if you then slowly increase that taxation over time. The way it is proposed to do it is, you calculate for every fuel type, natural gas, coal oil, the emissions per ton that you burn. And you tax based on those emissions. So natural gas would be slightly cheaper than coal, for example. And you start off with a base tax and then you just increase that 5% every year. So that kind of forces the entirety of the economy to slowly transition off of it.



[00:19:33] And if you model it out, we can link various papers that do it in the show notes, you will see that in 10 years, there's no more electricity from coal-fired power plants. It's just not cost effective to do it any longer., But what you cannot do, at least that's my understanding, what you legally cannot do without the government incurring a whole lot of liability, is to just say, "okay, Vattenfall, you have a bad track record, or we are not happy with their business practices, so you can no longer operate coal-fired power plants in our country". So you'd have to have a general tax. Plus, it's way easier to administer as well.

[00:20:09] **Scott:** That answers the question, certainly. That makes sense. Is it being spoken about and is it being negotiated or are we talking about that in Germany of that actually being a thing? Or is this just something that's been modeled out, but everybody is ignoring

[00:20:22] **Niels:** Well, we've just had a change in government, so I'm sure this is being discussed, but it's nowhere near being put into law yet. So what we are still doing in Europe is we still have the cap and trade scheme where you get your carbon, or your emission, credits. And the supply of those credits is artificially lessened every year. That's the approach the entirety of the European Union has adopted, for now, at least. And they can trade those. So if you say "I manufacture whatever widget and I've now switched to solar, so we have less emissions now", you have credits left over. So credits are like an allowance for emissions. You can sell the allowance, you didn't use, to some other company who is behind the curve. And that's the main criticism where you now have certain specialised companies who basically trade in these credits.

[00:21:08] **Scott:** Of course. And that was actually, in the early days when Al Gore was discussing that, and you had your first big buildups and huge investments in the whole thing, and it looked like a scandal and all that kind of stuff, that was one of the very, very first criticisms of the entire thing, this is gonna turn into an economy where people who understand economy are gonna extract value out of it and it's gonna end up being a huge problem. This is 25 years ago or something.

[00:21:30] Just one thing that I can't get out of my mind, if you look at an individual, if I go out and I just steal something and I get caught for it, I get put in prison . I just get punished. If you're a sports team and your team players are taking drugs so that their performances is enhanced and they win, you get knocked down a notch or you don't get the funding. Whatever it is, there's punishment for it.

[00:21:53] Is there a mechanism where companies get put in jail, you know, for like five years or something. And they can only start doing the things that they were built to do later. Once they've learned their lesson?

[00:22:05] **Eirik:** In short, the answer is no, as far as I understand. And I think it touches on an integral topic for "enkelfähig" and sustainability, which is accountability.

[00:22:16] There is definitely the lack of consequence that, or the lack of consequence that matters, consequence of scale, is what encourages many of these companies to continue behaving the way that they do.

[00:22:30] **Niels:** Though there's D&O liability, right. It's a whole insurance sector. So in theory, the director of a company can be held responsible for certain things.

[00:22:41] But on the other hand, you have this diffusion of responsibility. So at the end of the day, it's really hard to , even if there was a way to punish some individual for it, it's really hard to prove that that person is actually the one responsible. I would agree with Eirik that, you know, the one who makes 25€ million a year should probably be, just by definition, be responsible as far as liability of the company is concerned.

[00:23:05] The main issue seems to be that, firstly, if there are financial penalties imposed on the company, they're quite often less than even the profits generated from the misbehavior.



[00:23:15] And then secondly, there's a multi-year delay between the profit and the penalty. So for the average investor, who's not necessarily looking to hold a stock for 20, 30, 40 years, it just doesn't matter to them. If it makes a good profit now, and it takes three years to be uncovered, another three years to go through the courts, no one cares.

[00:23:37] The company doesn't have a conscience or a will to survive or anything, right. The company is just the shell in which certain people do certain things and other people profit from it. So the investors don't care if the company survives, basically.

[00:23:51] **Eirik:** And on that happily depressing note, I'm going to move us on to something slightly more positive. That was one of the few things we said in our very early production conversations that we didn't want to just focus on depressing topics.

Private rewilding efforts

[00:24:05] **Eirik:** I'm going to introduce another little factoid which is a much more positive example of large scale rewilding projects, so a positive example of land use.

[00:24:18] **Niels:** An honest rewilding project...

[00:24:21] **Eirik:** Very much so.

[00:24:22] **Niels:** A Plan-A rewilding project...

[00:24:25] **Eirik:** Indeed.

[00:24:25] And this one is called "Wildlands". It's one of the biggest conservation projects in the Scottish Highlands. It was started in 2006 across around about 220,000 acres, which happens to be more combined land than owned by the queen and the church of Scotland together in the UK. And it's owned by a single individual. And it's only apparent goal is to reforest these areas as part of a sort of 200 year rewilding plan.

[00:24:57] So it is long-term and as far as I can tell through research, there is no significant, or specific, hidden agenda or monetization. When you look into it, the organization does run a couple of hospitality venues across the Highlands, but all of those proceeds are apparently fed back into those conservation programs. And additionally, there are some sort of venture initiatives connected to the organization, but their investments are specifically funnelled into, and are supposed to directly contribute to, local communities around these rewilding projects. So, overall, as an example, Wildlands does seem to be an initiative built around land ownership by one single individual that is potentially pretty sustainable and "enkelfähig".

[00:25:45] **Niels:** Is there any, on the land that he purchased, or his organization purchased, did they put any easement on the land? Like, are they now legally obliged to keep that land as a wilderness? Or could they, in theory, just change their mind tomorrow or their heirs?

[00:26:00] **Eirik:** It is interesting that you asked that because I had a very similar thought when I was looking into this. And as far as I can understand, it is a very simple organization in terms of the way it's structured. And I don't think there is anything like that in place.

[00:26:16] Now, there has been. Specifically with his rewilding project in Scotland, like I said, there are other places where this is happening, there has been some criticism, partially connected to his significant landholdings in Scotland. The counter-argument to that that was brought was that, if you do have larger estates, it's much easier to enact larger scale rewilding projects. Which is, demonstratively, what Scotland does need. In this instance, when you think of Highlands, much of that area used to all be forest. It now isn't and it was essentially just cleared for, or kept clear for, grass and pheasant hunting purposes.



[00:27:00] In answer to your question, Niels, no, I don't think there are currently any safeguards put in like that.

[00:27:05] **Niels:** I don't think it's inherently negative that individuals acquire large tracts of land, especially in the agricultural world. It's the green revolution all over again. Which you can see very critically or you can see very positively. There's something to be said about some disruptor coming in and, you know, trialing new technologies and so on.

[00:27:25] However, one of the main criticisms is that person might say, oh, I wanna rewild this area. Or I want to experiment with less water intensive ways of farming or what have you. But does this all just rely on the whim of that person or organization? Or is there a legal structure in place, like an easement on a piece of land, where they force themselves legally, in a legally enforceable manner, to behave in a certain way for eternity? For the cynics among us, that's an important thing to see.

[00:27:57] On a very heartwarming story, though it is, again, individuals purchasing a lot of land, in New Zealand there's a place called Hinewai Nature Reserve. It was purchased, or the beginnings of it were purchased, in 1987 by a fellow named Maurice White. There are now up to 530 hectares managed by a lovely weird dude named Hugh Wilson.

[00:28:22] There's an excellent video of him on YouTube, which we'll link to in the show notes.

[00:28:27] It used to be entirely forested land on a peninsula in New Zealand, in prehuman times. Of course, then, especially after European settlement, it turned into open pasture and gorse.

[00:28:38] What is gorse? It's a weed. It's an invasive species introduced by the Europeans. It is the most costly weed to control in New Zealand. It's the 96th worst invasive species in the world, per the Global Invasive Species Database. It displaces native plants and alters soil conditions by fixing nitrogen and acidifying the soil. It's an extreme fire hazard because it's got oily and highly flammable foliage. If it does catch on fire, it burns hotter than most other weeds. Its seeds can survive on the ground for up to 50 years. So if you "clear" the land, the only thing you do is germinate the seeds that are sitting there and it immediately just comes back. Animals can't graze on it, it's completely useless as far as animals are concerned. And the entire area was covered by this stuff.

[00:29:27] **Eirik:** I was just gonna throw in a tiny little fact about gorse: when it flowers, it smells of coconut.

[00:29:33] **Niels:** Oh, so it isn't all bad, thank you. But basically it was unusable land. And, by now, a total of 5% of New Zealand's land area is covered by gorse, excluding existing indigenous forest and alpine areas. And it's the most costly weed to control in New Zealand, as I think I mentioned. So they spend a double digit millions of dollars per year, controlling gorse in New Zealand.

[00:29:56] So this fellow came along, Maurice White, alongside Hugh Wilson, and their strategy is to plant native species. And it turns out that these native plants, these native trees, very quickly out-compete gorse in terms of how high they grow. And once the trees have grown through the gorse and their foliage starts to develop, they shade out the gorse. It just dies off naturally. And if you leave the land in that situation for several decades, until the seeds are no longer viable, you've basically solved the problem.

[00:30:31] I thought it could almost be a metaphor for many, many things where you can spend millions and millions and millions on controlling gorse, you can literally bulldoze it, and it doesn't help in the slightest. But if you're a bit of a hippie and you just plant some trees and you just leave it be, it kind of solves itself.

[00:30:51] And of course now it's a private nature reserve, but it's open to the public. There's lots of walking trails. Hugh Wilson lives on the land. He makes all of the benches themselves. Like it's all hand-made where you sit on, if you go for a hike. And I would recommend to every listener, there's a hand-



written and hand-illustrated newsletter that they publish a few times a year. It's got an ISSN number and everything. It's a proper journalistic, you know, publication, but it's hand-written, hand-illustrated. It's lovely.

[00:31:23] **Eirik:** I think to bookend that, I'll just throw in my last fact for the episode, which connects very, very nicely to this idea of land management and, well, human land management.

[00:31:38] To caveat that, I think there are always going to have to be individual solutions for specific places. Like you said, New Zealand has a particular problem with gorse, it needs a very specific solution. And that one happens to be the intervention of rewilding with native plants, which you have to bring in if they are not existant. That said

Let nature solve it

[00:32:02] **Eirik:** I came across a study, published in Science, in their December issue, so it's relatively recent, and it was published by about 90 international researchers who were looking at tropical forests. And the finding of the study was that the potential for re-growth is substantial in tropical forests, if they are left untouched by humans for about 20 years.

[00:32:27] So basically saying human intervention is unnecessary in that environment.

[00:32:33] And it is a proper large scale study. So they looked at data covering forest recovery from about three continents, over 77 sites, over 2,000 plots of land across the Americas and West Africa. And then they evaluated 12 specific criteria around soil and plant functioning, ecosystem structure, and biodiversity, and things like that. And then they modeled that data in order to understand what would happen in the future. Otherwise, obviously, you would have to wait a significant amount of time, decades and decades to see what would happen.

[00:33:11] The technique they used is called chronosequencing. As far as I understand it is academically and scientifically robust. There are two key takeaways from this study, in the context of what we've been talking about.

[00:33:26] Firstly, as mentioned, when it comes to rewilding human involvement is not always necessary. Natural systems can often perform much better and more efficiently in terms of regeneration of biodiversity and growth as well as carbon sequestration and overall climate change mitigation. And I think that links very well to what Niels was talking about.

[00:33:46] Secondly, and I think most importantly, the key takeaway from this should be that rewilding can occur relatively quickly. In this study they found that tropical forests get back to about roughly sort of 80%, or 78% to be precise, of their old growth status over that two decade timespan, so over 20 years.

[00:34:10] And I think why this is important is because it should give us some hope that if actual action is taken, if these initiatives are created, seen through, we really could see significant progress well within our lifetimes. And isn't that a hopeful and lovely note.

[00:34:30] **Scott:** I'm going to play Niels and I'm going to say: you're handing those people, who say it's not really that big of a deal, a card to play. I'm just saying, just saying like, oh, it only takes 20 years, well...

[00:34:44] **Niels:** I think the point is you have to leave the land alone. So...

[00:34:47] **Scott:** Yeah yeah yeah, no no no, I get it, but the next generation can leave it alone because it's not going to take hundreds of years to get back, you know? So it's just one of those things. Everything can be as a different argument.



[00:34:58] It's definitely a hopeful signal. And I think with the momentum that we see, that the initiatives that things like "enkelfähig" are, I really see more momentum in the entire environmental initiatives than I think the two of you see. Or I see more positive initiatives, but just probably cause I'm starting from a different place than you are as far as my interest in the whole thing is concerned. But at the end of the day, that does give hope.

[00:35:21] It also gives hope that people like the Danish guy within his lifetime can make a bigger impact than you might think he could if it took a hundred years for his initiatives to start kicking in, right? So these initiatives for rewilding in our lifetime sounds awesome. I'm looking forward to it.

[00:35:39] **Eirik:** I think the point you touch on is the reason, the underlying motivation, behind all of this is key. And I think that's exactly the same around how information around these topics is portrayed. Because you're absolutely right. This could so easily be spun into a story about how "well it's actually not that big a problem".

[00:36:02] **Niels:** The thing is though, everyone is aware that if humans weren't around there wouldn't be an issue. So, of course, if you leave the forest alone, it's gonna be fine. That was never really in doubt. It's more an issue of, do we have enough area set aside for nature to do its thing, which currently we probably do not.

[00:36:21] On a very similar subject, Eirik, on the study, I saw this in real life: I was in the Harz National Park a few months back. And you would see areas, you would see entire hillsides, just with dead trees. There was a mass die-off of trees. There's some bug that befalls the trees. But they had a lot of signs up saying "don't worry, the forest is fine". It looked like a moonscape. It was a horrible place to be in, in some places. But all of the trees that died off weren't actually native to the area. They were planted for wood for mining operations. And the forest that is coming up, on its own basically, now, is more healthy. And will stay more healthy, longer term. So this mass die-off, in a way, was a positive thing.

[00:37:07] But again, only under the proviso that humans will not interfere too much. You can build your little trails, but do not go in and plant 50,000 off the wrong trees again. And that was exactly what they said. A lot of visitors complained to the national park leadership to say "do something about it; plant some trees, it looks horrible." And they say "no, no, that's exactly what we won't do and it'll need to regenerate on its own. So yeah, once humans are gone, the planet will be just fine.

[00:37:35] **Eirik:** And on that note, unfortunately, we've run out of time for today. So on behalf of Scott, Niels, and myself, many thanks for listening to our very first episode of Factoid Fridays. And we do certainly hope to welcome you back for the following episodes. So until then, to hijack a Will Ferrell quote, stay "enkelfähig".

[00:37:57] **Scott:** Haha, stay "enkelfähig".

Credits

[00:38:00] **Niels:** This was [Plan-A.show/2](https://plan-a.show/2). Go there to download or share this episode, or to read its transcript.

[00:38:13] We are, as will have been apparent, still working on improving our audio quality. We will get there eventually.

[00:38:20] If you have any comments or questions, please email us at feedback@plan-a.show.

[00:38:25] If you work in any of the areas discussed on this podcast, we would love to record an episode with you. Please get in touch!

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[00:38:32] [Plan-A.show](#) was created by Eirik Bar, Niels Ganser and Scott Denton. This episode was edited by Eirik and Niels. This episode's music is by Nikolay Skvortsov.

[00:38:43] Thank you for listening!