

## Intro

abundance of life - biodiversity but now depleting, but really fast. 1mn/8mn species at risk of extinction SOOO FAST Unless speed is taken, grave impacts for everyone. Critical parts of Earth's system. By going further into the forests... we see more diseases.

## Pt 1

David was lucky - lots of wonders set to go away. Large crisis. Really important to understand the effects, and how we are responsible. UN asked bunch of scientists, and we are screwed. Since 1970, things with vertebrates, have declined by 60%. Large mammals have disappeared from 3/4 of the range. Happening all at the same time everywhere. Extinction is natural, but the rate of extinction is the problem. 100x faster than normal, and accelerating. Extinction is real, not imaginary. Only 2 white northern rhinos left, mother & daughter. Pushed to the brink of extinction by overhunting and habitat destruction. Once they're lost, they're basically screwed.

## Pt 2

In the natural world, everything is joined together. Everything is required to make it work, and we're part of the system and reliant on it, just as everyone else. We're just changing them willy nilly. We need insects - and they're dying. We can tell because they aren't on the windcreens. An important part of the foodchain - being eaten and pollinating. Soil should be teeming with life, but the soil has been degraded with low biodiversity. We need them to break down organic matter, and if we lose diversity, we lose that. Due to soil degradation, food prod is down. **Everyone is affected.** 1 in 4 plants are at danger of extinction, and they underpin **everything...** We need them for clean water, air and everything. We also need the roots to hold the soil in place to prevent landslides. We have seen it many times, but we keep making mistakes. We keep converting wetlands which hold water, and now they're flooding.

## Pt 3

### Pt 1 of Pt 3

Many ways to remove pieces from a puzzle, with the most obvious being guns and death. The illegal wildlife trade is a multi-billion dollar industry. Still a war & battle. Everyday Africans lose 2-3 rhinos. Not just rhinos though, thousands of species. With money and internet access, anything is possible. All made up - not cultures and traditions. Most trafficked animal is the Pangolin. Found in Asia and Africa, which are natural pest controllers each taking 70mn ants

per year. The only mammal covered in scales, which are then sold..... Massive demand.... No medicinal purposes - made of the same material of our fingernails. Way way way more animals. Just over 100 tons of scales, or 175k pangolins killed. Dehydrated and emaciated. They are then boiled alive. At first, people thought pangolins might be the source, but even then people never stopped. All 8 species threatened with extinction.

### **Pt 2 of Pt 3**

Massive and widespread overfishing, happens right under our fingertips. At any 1 time, there can be 100k trawlers fishing. Massive nets, size of 4 jumbo jets, and everything goes in. Fewer and fewer to breed and recover. We have to choose for sustainability or a big catch in the short term, and we have always chosen the big catch. Never well implemented even if regs exist. We completely destroy the balance.

### **# Pt 4**

Massive pop increase. Pop growth much higher in dev world. Much less consumption. But, who is at fault. The average US resident consumes 7x as much as an average citizen in a developing country. We have strong laws in the UK, but we aren't an industrial country anymore, and we get our stuff from countries where they don't have the same or any laws. It can take a while to realise the effects of chemicals, like PCB (chemical not printed circuit board). Leaks into the sea, and goes up the foodchain. Striking example in UK, where the last remaining pod has no calves, and one died and was analyzed and had massive levels of PCB, and no functioning ovaries. When they die, we'll lose **all** orcas in the UK.

### **Pt 5**

The world is getting hotter, and we are trying to limit change to 2 degrees a year, but we are up for a 3 to 4 year... Changes food sources, migration patterns, breeding problems. Some species can't survive in their normal habitats. Eventually, they won't have anywhere left to go. In the Aussie tropics, some birds can't handle the heatwaves, so they move closer to death.

### **Pt 6**

The single biggest driver of biodiversity loss, is destruction of habitat. We've converted 75% of the land not covered by ice. All for 1 species. If you remove trees and add 1 culture, the species who have evolved will die. We have enough land, but it's quicker and cheaper to clear more land, even if we already have enough. A lot of that clearance is from people like us, who want cheap stuff, all year round. We're contributors. We're taking data and connecting it, and who's taking the most - who are the main painful children. It turns out to be

cattle, soy, cocoa(choc not coc) and coffee. Brazil has a bunch of cattle herds, more than 2mn animals. China is the main buyer, and the UK doesn't import much beef, although we do import lots of soy. A very productive bean, and a bunch goes to animal feed.

## Pt 7

Giant anteaters have been around for mns of years, but are going very extinct - only 1 pup at a time who is carried around on their backs, and their habitat is going away. Over 1/2 is becoming agricultural. Predominantly going to China, and we buy 1/2mn tons per year for chicken/cattle feed. Some supermarkets are starting to shift. Because of where we buy it from it has a disproportionate impact on certain species. Barriers to movement can cause serious consequences. Can be driven into isolated islands, but the surrounding area is very lethal - surrounded by highways. Sometimes, the pup survives even when the mum dies. Roadkill decreases the pop growth rate by 1/2.

## Pt 8

We found swine flu, SARS, ebola and possibly covid-19 are all from going too far into the environment. They all have lots of different diseases circulating around, just like we do, and as we get more contact, we see more diseases. The animals that get stressed shed viruses at higher rates, and we stress them. We encroach further day by day into the environment. Forests all around the world have hundreds of viruses which we haven't seen yet. The second we build a road, we start exposure. The people who work at the logging camps eat bush meat, and this was how we got HIV. At each step we bring ppl closer and closer to the animals and their viruses. Our consumption of beef and poultry drive this. When ppl convert habitat, the best spreaders are rats, mice and bats. When we have intact systems with biodiversity, it all stays intact. Then, the small-bodied animals come into their own, and breed and spread. Our destruction of the environment **drives pandemics**. Since it was first discovered and traced to a wet market in Wuhan. Coronaviruses are known to reside in animals, and the closest relative to the virus was in bats in rural China. They live in really complex colonies with nurseries, and hunters and the areas they are in have gone under incredible change with roads and high-speed links. Either someone ate it before and came to Wuhan, or someone sent it to Wuhan. Either way, we drove the Coronavirus. If we continue on our current path, Covid-19 might not be a one-off. They reckon that 5 new viruses will come every year. If we have one full-on Covid every decade, we'll struggle.

## Pt 9

### Pt 1 of Pt 9

Many scientists have been saying for a long while that this has been a problem. In 1992 there was a massive conference where they knew there were problems. A convention was signed and known to be important. In 2010 they came up with 20 targets, but to be candid we won't meet any. The problem is that we don't have any massive environmental laws that are global. Lots of people have jobs based on continuing this. Even today, people will still try to make sure that this never happens, and will call it a Con. 2 of republican witnesses said it was a meh, and that it was a spectre to scare the public into compliance. We have wasted 20 years doing nothing, when we could have done a much better job. If we acted more seriously, there wouldn't be as many threats and we wouldn't have covid-19.

### Pt 2 of Pt 9

Will we finally take the step to stop. The world has been on pause, but as we begin to move forward we have a moment to change how we are running everything. The first step is to change how our economies run. Governments are recognising that they have to invest to help this. There are being studies conducted to try and make it better. The investments are a very good way out of this depression.

We can plant trees, or retrofit buildings to be more efficient or we can repair soiled soil. Strong econ multipliers. We need to dramatically change the damage we do from consuming and producing. Nature is coming as a free good right now, and estuaries etc. are being used to hold pollution. People who extract from nature should pay the full price. Nature has actual value. We need affordable food without further expansion. We actually waste about 40% of the food we produce. If the farmer isn't right, and we don't like it, it is wasted. We must reduce chemicals, and the best for the private sector to show the others. There **has** to be a standard and more laws. We need legislation to stop import of products made in unsustainable ways. Back in the 1980s we worked out that the COCs were eating up the Ozone. And, once it was banned we found alternatives, and quickly. We shape the future of the planet in the years as to what we do, and the months as we come out of the covid crisis.

We have to look at our behaviours and 40 years ago people consumed a lot less, and were no less happy. We have to be diligent about what we consume. We don't have to say no meat, or no dairy, but we have to say no to unsustainable food. There is a wave going round, and we are realising that we need to stop. The youth of tomorrow will look back in horror if we don't stop. We need to make sure that we say no to some things. Nature can strike back. 40 yrs ago, David had a nice experience with some mountain gorillas (dear god he looked young). Finished at 52:35