

A Life on Our Planet Summary

By David Attenborough

We remember environmental disasters, but do we *actually* learn from them? In 2008, academic researcher Maxwell Boykoff, studied UK tabloids to determine how climate change was represented across the widest circulating newspapers. Environmental issues have historically had low news value. The purpose of Boykoff's study was to examine environmental representations, to 'provide opportunities to interrogate how particular narratives are translated, and how they make (in)visible certain discourses.' One of the significant findings was that we pay attention to the environment when it affects us. Hence, if we suffer the fallout of a natural disaster, we take notice of the planet. With this in mind, David Attenborough has dedicated his life to educating us about our planet, and making discourses visible, through his captivating storytelling.

A Life on Our Planet is a masterpiece that explores the life and legacy of natural historian and national treasure David Attenborough. While the future of our planet may look bleak, Attenborough offers us hope and a vision for restoring our planet.

Attenborough is famous for many of the truly epic natural history documentaries on our planet. His passion for protecting diverse wildlife, and reclaiming our wilderness is palpable, and *A Life on Our Planet* is his "witness statement." It's a statement of his past experiences, what will happen if our current destructive path continues, and what we need to do to rehabilitate our remarkable planet.

Let's briefly go back in time. More recently, you may have heard of

Pripyat from the HBO series *Chernobyl*? Overnight, Pripyat transformed from a pleasant, bustling town to a nightmarish disaster zone. Pripyat is situated in Ukraine, and was built by the Soviet Union in the 1970s. It was designed for employees working at Chernobyl, a nearby nuclear plant. Life in Pripyat continued comfortably until 26 April 1986, when reactor number 4 at Chernobyl exploded. Due to carelessness, poor planning, and human error, it's probably the most devastating environmental disaster to date. Fast forward to 2021, and a far greater catastrophe looms. According to David Attenborough, we have 'overrun the Earth.' As with the citizens of Pripyat, we carry on with our daily lives, unaware that our carelessness and lack of planning will ultimately destroy us, and our natural world, unless we alter our self-destructive trajectory.

In this summary, we'll briefly explore what Attenborough calls "the tragedy of our time," and how, with immediate and decisive action, disaster can be averted.

An Eye-Witness Account of a 94-Year-Old

Attenborough's wildlife journey started at a young age. In 1937, at age 11, he would cycle from his home in Leicester into the countryside to study fossils in the rocks. He researched how the Earth had experienced massive eruptions at specific points, destroying many species.

These mass extinctions have occurred five times during our planet's four billion-year lifespan. The last one is thought to have been a meteorite that struck Earth, destroying anything bigger than a dog. Nature, once again, had to start again. However, this time it included humans in its design. Its decision to do so has resulted in the human species pushing our planet towards a tipping point.

As Attenborough reflects on his life, he begins each chapter with three facts. Let's rewind to 1937 and some of the statistics of that time.

The world population was 2.3 billion, the carbon in the atmosphere was 280 parts per million, and the remaining wilderness was 66%. If we fast-forward to 2020, a mere 83 years later, the statistics are disheartening. The world population sits at 7.8 billion, the carbon in the atmosphere is 415 parts per million, and shockingly the remaining wilderness is 35%.

These simple statistics speak as eloquently for our planet as our author does. In one person's lifetime, we have demolished our land and sea wilderness.

The Ocean Has Been Plundered

The ocean covers 70% of our planet's surface, and it's where all forms of life began. It has hidden its secrets well because of the difficulties of filming underwater. Attenborough's BBC production, *The Blue Planet*, changed this when its sophisticated camera equipment filmed a bait ball frenzy, a fantastic underwater hunt the likes of which no one had seen before. Baitfish are driven into tight balls by tuna, before they attack, then sharks and dolphins join the hunt; they're followed by gannets, and even a whale.

However, these marvels of the underwater food chain have become rarer, owing to overfishing, and because of disruptions in the food chain, our oceans are dying. Unlike land chains, which may have three food chain links, such as grass, to wildebeest, to lion, the sea has about five, so if we overfish at one point, we collapse the entire system. And sadly, we don't only deplete our fish.

The Demise of Our Coral Reefs

In 1998, a *Blue Planet* film crew discovered that the beautiful colors of the coral reefs were turning to skeletal chalky white. And skeletal is precisely what these reefs were becoming.

Small creatures called polyps, create reefs by building walls of calcium carbonate to protect their tiny forms, while the fantastic colors of a coral reef come from the algae in their tissues. They have a symbiotic relationship; the algae absorb sunlight, which provides the polyps with the energy they need to snap up their passing prey, and expand their coral colony. However, stressed polyps dispose of their algae partners, leading them to bleach and turn into skeletons.

The 'why' behind this, points to global warming. Fossil fuels increase the greenhouse effect, releasing gases such as carbon dioxide. The ocean bears the brunt of this because it absorbs the excess heat of global warming. As Attenborough cautions, the bleached coral is like canaries in a coal mine.

The Arctic Areas are Just as Affected

In the *Frozen Planet* series, filming crews noticed that the Arctic summers were growing longer, the summer sea ice had reduced by 30% in thirty years, and glaciers were far smaller. If the ice disappears, so does the algae that grow underneath. This alga is vital because it's the start of the Arctic and Antarctic food chains.

Polar bears need ice as the launching pads for hunting. The longer they have to wait for the ice to return, the more they use up their fat supplies. As a result, female polar bears are giving birth to smaller cubs, and these underweight cubs are less likely to survive. Walrus rest on the sea ice when they're not hunting, and because there isn't enough space on the diminishing ice, it becomes very overcrowded. Their solution is to climb higher up the cliffs, but with their poor eyesight, they often fall from the tops of cliffs as the smell of the sea lures them closer.

We pull out 80 million tonnes of seafood every year, only to replace it with plastic. Did you know that 1.8 trillion plastic fragments are currently drifting like a garbage site in the northern Pacific? The cycle of destruction continues as the sea life is trapped by or ingests this waste.

And freshwater is equally at risk. The 50,000 large dams in the world, change the water flow and temperature of rivers. These rivers are also

dumping grounds for chemicals and pesticides, destroying birds and freshwater fish. In his more recent travels, Attenborough noticed fishers using mosquito nets in the hope of catching something to eat.

Land Is Threatened

Attenborough says, 'We run life on the planet to meet our own ends.'

An amazing and delicate web of connected relationships exists everywhere, particularly in rainforests. Seasons blend into one another in these tropical conditions, with lush growth, abundant flowering, and seed production occurring in ongoing cycles. Even orangutans play a role in this by spreading seeds as they search for ripe fruit. However, half the world's rainforests have been destroyed, and the orangutan population in Borneo has reduced to a third of what it was.

We have such a fascination for wildlife, but wild animals make up only 4% of the mammals on Earth. Insects, our small hunters, and pollinators have reduced by one quarter.

Half of the fertile land on Earth is currently farmed, and it's often overgrazed, over-sprayed with pesticides, and denuded of topsoil. We eat 50 billion chickens a year and feed them with soy planted on deforested land.

In the 1950s, Bernhard Grzimek, a German scientist, realized that wildlife was under threat in the Serengeti and needed the entire expanse of the plains to survive. If herds of animals couldn't travel to new grazing, they, along with predators, would starve. Fortunately, Tanzania and Kenya took far-sighted action to safeguard the sacred paths of the Serengeti

migration.

The tragedy is that despite powerful stories such as this, including Dian Fossey's work with gorilla populations, and the creation of tiger reserves in India, wildlife habitats are increasingly endangered.

The Tipping Point

Since the Second World War, what's known as the "Great Acceleration" has brought us many progressive things, as our GDPs indicate. Still, energy use, production, transport, farming, and telecommunication have also shown their sinister side. Any graph that measures their side-effects; carbon dioxide, methane, loss of land and sea wilderness, and increasing farmland will also illustrate a sharply accelerating increase. This trajectory is unsustainable, and the Great Acceleration will inevitably result in a "Great Decline."

So, how do we recognize critical thresholds?

A team of scientists led by Johan Rockstrom and Will Steffen, developed The Planetary Boundaries Model. This model outlines nine critical thresholds, or planetary boundaries, such as climate change, air pollution, land conversion, and biodiversity loss. If we push beyond even one of them, we destabilize the balance of our planet. We have already moved beyond the boundaries of four of these nine.

This begs the question, 'What will the next 100 years look like if we don't change?'

Predictions for the 2030s

The Amazon rainforest could suffer from "forest dieback" and be starved of moisture, becoming an open savannah and destroying its biodiversity. This devastation could happen quickly, with water and food shortages, and the displacement of about 30 million people. Fewer trees and more carbon in the atmosphere would escalate global warming significantly.

Ice-free summers in the Arctic would also start. Algal forests would not attach to ice, damaging the ocean food chain. Furthermore, less ice means that the Arctic would be unable to cool the planet down.

Predictions for the 2040s

As the Arctic warms, the tundra in Alaska, northern Canada, and Russia, would collapse as the permafrost would not stay sufficiently frozen to hold the soil together. Landslides and floods would occur, but worse still, this thawing would release 1,400 gigatonnes of carbon into the atmosphere.

Predictions for the 2050s

As carbon release accelerates, the ocean will continue to absorb its share of this. However, as it does this, carbon dioxide changes into carbonic acid. Coral reefs don't like acid, and 90% of our reefs could die off in a few years. Plankton would also be destroyed by the acid, affecting the entire food chain.

Predictions for the 2080s

Farming would be pushed to a crisis point. Soil would be inadequate, insects and bees destroyed, and droughts and flooding would increase. It's estimated that three-quarters of our food crops could fail. And as the natural environment fails, pandemics are likely to increase.

What Will the Early 22nd Century Bring?

According to Attenborough, the 22nd century could herald massive enforced human migration. Rising sea levels could lead to cities like Rotterdam, Ho Chi Minh City, and Miami being evacuated. Earth could be 4 degrees Celsius warmer, making farming in many areas impossible. Humanitarian crises would result as people would be forced to relocate, triggering border conflict.

This might all sound like a post-apocalyptic horror movie. But, there are ways to change direction and alter the doom and gloom we've created.

Rewild the World

Attenborough urges us to restore biodiversity. He believes that we have The Planetary Boundaries model as our guide, and that we should be looking to it for inspiration.

However, here's a curveball. The wealthiest 16% in the world are responsible for almost 50% of the environmental impact. Kate Raworth, an economist at the University of Oxford, has added a social boundary to

The Planetary Boundaries model - one that requires us to provide minimum levels of human well-being for all, including adequate housing, clean water, food, education, and justice.

Environmental economists are trying to address this. The Happy Planet Index measures both an ecological footprint and human well-being component in a country. In fact, in 2019, New Zealand dropped GDP as its formal measurement of progress and created its own index, taking into account people, profit, and the planet.

But there's more we need to do.

What Nature is Telling Us

Amazingly the plants on Earth, together with their ocean counterparts of algae and phytoplankton, know all about solar power. They capture 3 trillion kilowatt-hours of solar energy every day. Clean energy has to replace fossil fuels. Renewable energy, such as solar, wind, and water, could supply power.

It's happening already. Iceland, Albania, and Paraguay generate their electricity without fossil fuels. Morocco generates 40% from renewable power plants and exports solar energy. And of course, if we increase our wilderness areas, we have a natural way of capturing carbon.

We also need to rebuild our seas to capture carbon, increase biodiversity and food supply. "No fishing" zones cover less than 7% of the ocean. However, if we had "no fishing" zones in one-third of the sea, our fish stocks could recover over the long term. In 1990, parts of the Mexican Coast were overfished, so a marine protected area was established.

Fishers survived on food vouchers but kept the faith, and today, marine life in that area has increased by more than 400%.

The United Nations and World Trade Organisation are trying to establish new rules in international waters, which are notoriously overfished by large nations. We also have to rewild mangroves, salt marshes, and kelp forests to restore biodiversity.

However, Attenborough points out that vested interests will hold us back. Oil and gas companies represent the largest businesses globally, heavy industry uses fossil fuels, and there's a hefty stock market investment in these companies. Levies and carbon taxes will go somewhere to shift this. Air transport will be hugely problematic to solve, although electric and hydrogen planes are in the process of being developed. The good news is that electric cars are already here.

We Also Have To Take Up Less Space

Farms take up a combined space the size of North America, South America, and Australia combined, with devastating greenhouse gas emissions. How do we reclaim farmland but also increase the food supply for a growing population?

Regenerative and urban farming are two options. No plowing and no fertilizers are used. Instead, cover crops are planted after harvest to protect the soil, and crops are rotated. Urban farming is an option on rooftops, abandoned buildings, and exterior walls of city buildings.

We need to shift to plant-based diets. As much as 60% of farmland is devoted to beef production. There's some good news though. Recent

surveys indicate that one-third of the population has either stopped or reduced their meat consumption in the UK, and 39% of Americans are trying to eat less meat. Many new plant-based foods are on the market, and in the future, biotechnology may be able to use microorganisms to provide us with proteins. It seems possible for us to feed ourselves quite happily using half the land we currently use.

Governments need to offer financial incentives to create wilderness areas or involve local communities that can benefit from rewilding. The Masai in Kenya engages in projects to reduce their cattle herds and develop wildlife. Farmers in developed countries could be incentivized to build biodiversity on their farms. For example, the Costa Rican government offered farmers grants to replant indigenous trees twenty-five years ago. Today, forests cover half of Costa Rica.

How many people can the Earth carry? Population growth peaked in about 1962. In the 1960s, families often had five children, but today the average is 2.5. Yet, we're nowhere near the stage where our population has stopped growing. In addition to this, we have an increased life expectancy. It seems that the human population will only really peak early in the 22nd century, at about 11 billion people.

In Conclusion

So let's go back to the beginning of this summary. If we travel back to modern-day Pripyat, David Attenborough tells us that nature is once again asserting itself. The forest is growing, flowers and fruit trees blossom, and wild animals visit. It seems utterly impossible that after such a devastating environmental disaster, there would be any kind of happy ending. But, the moral of the story is indeed a positive one. Nature will take any chance to reclaim some space.

It's not too late. Many experts wrote off Pripyat, and many of us are apathetic about the future of the planet. We've adopted a fatalistic attitude that it's "too little too late." Pripyat tells us otherwise. Every human can make a difference, but we have to come together internationally, and support the many people already hard at work to save our planet. Politicians and corporates have to overcome vested interests and work towards the greater good.

As Attenborough says: 'We regard the Earth as *our* planet, run by mankind for mankind.' If this is the case, surely it's up to us to treat our planet with kindness and respect. We all need to change our mindset, and we need to implement a new order right now.