

# Futures Foretold

## Climate Fiction

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Climate change will not just be background noise in a busy 21st century. Whether it is managed and stemmed or fuelled unchecked, it will define generations, provide and destroy livelihoods, and sculpt geographies. In this essay, Aude Massiot tells a parallel story of one life with two destinies in a Europe of 2049.

In 2018, representatives from 197 countries met in Katowice, Poland, for COP24 – the 24th Conference of Parties – to discuss ways to fight climate change. “We understand the enormous challenge that we face with climate change,” declared the then-UN Secretary General António Guterres, “and we know that we are not on the right path.” Even in those fateful years, the future of humanity was in jeopardy and many of the effects of global warming were known, from mental illness to respiratory and cardiovascular problems to the accelerated spread of infectious diseases.

Without fully realising it, humanity would turn the page in 2018 with COP24, a summit that was supposed to build on the ‘last chance’ Paris Agreement signed three years earlier. Born in France in 2012 and part of the ‘climate generation’, Souria would face two possible futures.

Depending on the action or inaction of countries, institutions, businesses, and citizens, the two possible lives – brown and green – lived by Souria so far in December 2049 contrast starkly and remind us of the climate crisis we face in 2019.

### PLANET ON THE BRINK

The voice on the phone is weary: “It’s the third time the house flooded this year. The insurance companies are swamped and are not accepting any more claims until 2051. We’ve no choice but to leave everything to rot and find somewhere else to live. Can your dad and I come and stay for a few days?” “Of course, you’re more than welcome,” replied Souria. She hung up and the hologram of her mother disappeared into her watch. She remembered her childhood home in the south-west of France that her parents would have to abandon. Ever since the

great floods of 2041, she had known this day would come.

The young woman mechanically scrolled through the latest Google alerts on her 3D screen. Among the photos of villages devastated by floods across the south of France, one article caught her eye: “China launches huge geo-engineering experiment without neighbours’ agreement.” This technology, unknown to the public two decades previously, is the new hope in the battle against climate change. And one of humanity’s greatest leaps of faith.

### POLLUTION SPIKES

After the heatwaves that killed 65 000 people in China the year before, Beijing has decided to release massive amounts of particles into the stratosphere. They are supposed to reflect solar radiation back into space, thereby lowering the planet’s temperature. But an article published by a collective of 41 000 scientists warns of the risks that such an experiment carries. Despite decades of research, it is still not possible to say what effects it will have on the Earth’s ecosystems.

Souria sighed. She’d had enough of catastrophic headlines about the future of humanity. That summer’s heatwave had lasted three weeks with temperatures hitting 45 degrees Celsius. It had been



### AUDE MASSIOT

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impossible to sleep in her poorly insulated apartment in Nantes, a medium-sized city in the west of the country. She couldn't open the windows because with the heat came spikes in pollution. An asthmatic like many of her friends, she longed for a return to her parents' era, the years 2000 to 2010. A time when mankind was aware of the dangers but still enjoyed the luxury of putting off the societal changes necessary. In 2019, it was strongly believed that the EU member states would manage to overcome their differences. But the results of European and national elections across the continent undermined efforts to collaborate. Nor did citizens manage to show their leaders that the environment was a vote winner.

Souria is all too familiar with the issue. She works for the city of Nantes in the department that manages the reception of refugees. In her caseload, she no longer distinguishes those fleeing war from economic migrants or climate migrants. The UN predicts that there will be 500 million climate refugees by 2060, raising its previous forecasts. Faced with this influx, France was unable to maintain its closed border policy. The previous government had tried but the policy resulted in outbreaks

of violence and their defeat in the last presidential election.

In her office, Souria is swamped with asylum applications from people fleeing the Sahel [the area between the Sahara to the north and the Sudanian Savanna to the south]. Extreme heatwaves exceeding 50 degrees have made certain areas there uninhabitable, so people have migrated north. Léo, Souria's partner, saw a documentary on this issue just the week before. He explains: "It appears that the 1.7-degree rise in temperature since the industrial era has caused the oceans to warm, particularly the Atlantic. This has prompted the Gulf Stream to slow, which, in turn, has led monsoon rainfall in West Africa to move south. The result is the desertification of the Sahel."

### EXPENSIVE BEER

Of late, the couple have been increasingly discussing how they are suffering the consequences of the actions, or inactions, of their parents and grandparents. "As long as we're alive there's hope," Léo likes to say over a glass of English wine (beer has become too expensive due to the hops shortage). He works in a farming cooperative. They have sprung up all over France, to the point of sending some large, out-of-town supermarkets to the wall.

Souria is less optimistic. She struggles to look past the misery that she sees day in, day out. Four years ago, the couple decided to adopt a Malian child who arrived in the country that same year. Like many of their friends, they had quickly ruled out the idea of having a child of their own. With the overpopulated planet and an uncertain future ahead of them "it would be criminal," as Léo had said one evening. When Souria met six-year-old Biram, they quickly made up their minds to adopt him. The couple do not know what climate lies ahead for him, but at least they know they can give him a better life.

### PLANET REPRIEVED

The voice on the phone is calm. "I daren't go out with this snow storm that's been raging for days. It's lucky we redid the house insulation five years back. Snuggling up in the cosy warmth of the living room is lovely. And the heating bills are tiny."

"Glad to hear it, Mum. I'll come and see you once the storm passes. I've seen some cheap tickets to Paris on the Hyperloop [the network of capsules propelled by a magnetic field and travelling at 1200 kilometres per hour was built between Toulouse and Paris in 2035]."

Souria hung up. The hologram of her mother

disappeared into her watch. She reminisced on her childhood home in south-west France, a haven of peace and quiet powered by solar panels. To pay for them, her parents had taken advantage of the affordable loan scheme rolled out by the government in 2023. It was expensive but the resulting energy and water savings more than covered the repayments. Souria and her partner Léo also renovated the insulation in their apartment in Nantes when they bought it, and they connected their home to the local heating network powered by renewable gas generated from processing industrial and agricultural products.

### CONUNDRUM

It was a no-brainer. Souria works as a 'renovator' for the city. She offers turnkey and subsidised renovation programmes to residents, finding specialist tradesmen and identifying the most affordable technical solutions. When she was little, this profession hardly existed, but since she went to university in 2030, the sector has thrived.

And for good reason: a few years prior, France saw its ecological transition accelerate rapidly. Encouraged by the vote in 2021 to make European climate goals even more ambitious, the new French government that came to power in 2022 decided to align all public policy with the négaWatt 2050 scenario.

Written by experts from the think tank with the same name, it was the first roadmap to France becoming carbon neutral by the middle of the century.

Souria knows the négaWatt scenario inside out: it was the subject of her dissertation. In writing it, she interviewed Thierry Salomon, the vice-president of négaWatt. "A clear and realistic path for ecological transition could be accepted by the French people," he told her. "Renovate 780 000 homes, increase vehicle efficiency by almost 60 per cent, get meat eating back to 1990s levels, and end fossil fuel imports to reach 100 per cent renewable energy by 2050. All by cutting energy consumption by two thirds. This is possible and would be extremely beneficial for the economy." Souria left the interview a different person. And the prophecy came true. Souria marvels at how surplus solar electricity in the summer, or wind electricity when it is breezy, can be transformed into biogas and stored for the winter using electrolysis.

Together with Léo, who manages a booming network of agricultural cooperatives in the Nantes area, Souria travelled across Europe by bike to celebrate her 25th birthday. On their travels, the couple discovered how, since 2017, the Portuguese municipality of Vila Nova de Gaia (population 312 000) produces a third of its electricity by turning waste into biogas. In Norway, on the

banks of the Oslofjord, Souria insisted on visiting the world's first energy-positive school. Since completion in 2018, the building alone has produced 30 500 kilowatt hours of electricity a year, equivalent to the average annual electricity consumption of two three-children families.

### SILENT STREETS

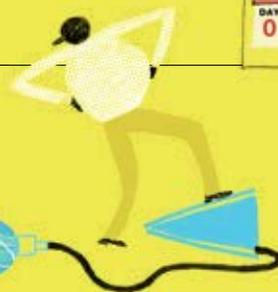
Sitting on their leafy terrace, the couple reflect on how the situation was turned around. In the 2010s, their parents were pretty much in despair. The week before, Léo had seen a documentary on the very subject. He sums it up: "Things really started to change 20 years ago. Following new European climate policies introduced in 2019, the American presidential election of 2020 brought a young woman to power who immediately re-entered the Paris climate agreement. She closed coal power stations and banned shale gas production. It created a ripple effect."

That evening, strolling along the streets of Nantes, which had fallen silent since only electric vehicles were allowed, Souria and Léo remarked on how it was a great time to be alive. They passed tramways now used to transport goods to the city centre at night instead of lorries. Streetlights would switch on as they approached and off again as they passed. Looking up from the city streets, Souria and Léo could finally see the stars again. ■

### Earth Overshoot Day since 1970

The date when humanity's yearly consumption overtakes the planet's capacity to regenerate renewable natural resources in that year.

Source: Global Footprint Network (2018) <[www.overshootday.org/newsroom/past-earth-overshoot-days](http://www.overshootday.org/newsroom/past-earth-overshoot-days)>



1970  
29  
DECEMBER

1976  
16  
NOVEMBER

1982  
15  
NOVEMBER

1988  
15  
OCTOBER

1994  
11  
OCTOBER

2000  
23  
SEPTEMBER

2004  
01  
SEPTEMBER

2009  
19  
AUGUST

2018  
01  
AUGUST