

Reading 1A

At the end of our weather

On an epic, sometimes hazardous, personal mission, Mark Lynas travelled the world for three years in search of climate change. In this powerful journal, he describes a planet where global warming is not a distant prospect – it is here and now

It was Christmas time, three years ago. I was with my parents on their small farm in Llangybi, north Wales. As is customary in my family, the slide projector had been set up and complex negotiations over the choice of slides had begun. We settled on Peru, as is also customary, and all sat down to relive memories from 1979, when my father's overseas geological posting took us all to Lima for three years. I was only five back then, but I still remember every moment.

It was probably on my insistence that the slideshow began with my father's photos from Jacobamba, a lonely and remote Andean valley where his expedition had pitched up for a month or so in 1980 to study the rocks. I'm not too interested in rocks: it was the

glaciers that caught my eye – the pristine, shimmering snowfields that topped Jacobamba Valley where the Cordillera Blanca, Peru's highest mountain range, marked the very spine of South America.

The projector whirred and up came my favourite photo. A huge, fan-shaped glacier loomed over a small lake. Icebergs were floating in the slate-grey water, having tumbled from the glacier above. It was spectacular. My father kept up a commentary. He had loved the place and had never forgotten it.

'It might not be the same now,' I cautioned. On a climbing visit to the Alps the previous year, I'd been struck by the obvious rapidity of glacial retreat and become fascinated by global warming, a profound process which our civilisation seemed powerless – or extremely unwilling – to prevent.

My father was unconvinced. 'Perhaps,' he answered, 'but that was a pretty big glacier. There were avalanches coming down all the time.' Once a

calving iceberg had fallen into the lake, causing huge waves that washed away half the expedition's equipment. 'Still,' he mused, 'I wonder what it does look like now. Maybe it has changed.' I looked at the screen and said nothing; I'd just had an idea.

That moment marked the beginning of a three-year journey that would take me across five continents in an often dangerous search for signs of global warming. I was stunned by what I found. The changes were everywhere and people were desperate to talk and to bring attention to their plight in a world that seemed to be unravelling. And, of course, I also retraced my father's steps in Peru, in order to one day come back with my own slides and answer his question.

Tuvalu, South Pacific

I had been in Tuvalu for only two days when the first puddle of water appeared at the side of the small airstrip; more puddles soon joined it. The sea had welled up suddenly through thousands of tiny

holes in this atoll's bedrock of coral. People gathered to watch the water flow down paths, around palm trees and into back gardens. Within an hour, it was knee-deep in some places. One of Tuvalu's increasingly regular submergences had begun.

A similar thing occurs most winters in Venice, but Venice has £1.6 billion to spend on a system of protective floodgates. Tuvalu is one of the world's smallest and most obscure nations: 10,000 people, scattered across nine tiny coral atolls. Sea-level rise here is a crisis of national survival: very little of Tuvalu is much more than 20 inches above the Pacific and its coral bedrock is so porous that no amount of coastal protection can save it. According to Professor Patrick Nunn, an ocean geoscientist at the University of the South Pacific in Fiji, atoll nations such as Tuvalu will become

uninhabitable within two or three decades, and may disappear altogether by the end of the century. Pleas by a succession of Tuvalu's Prime Ministers (and those of other atoll nations such as Kiribati and the Maldives) for dramatic cuts in greenhouse-gas emissions have been ignored by other, more powerful states. Tuvaluans will have to move.

The first batch of evacuees, 75 of them, is scheduled to migrate this year to New Zealand, 2,000 miles to the south. But many of the older people say they will refuse to leave. Toaripi Lauti, the first Prime Minister of Tuvalu when it became an independent country (it was a British colony until 1978), said: 'I want my children to be safe. I tell them: you leave so that Tuvaluans will still be living somewhere. But I want to stay on this island. I will go down with Tuvalu.'

Government officials are angry at the international community's lack of response, and particularly with the Bush administration in Washington. Paani Laupepa, a senior official in the environment ministry, told me as we sat on a white-sanded beach: 'We are on the front line of climate change through no fault of our own. The industrialised countries caused the problem, but we are suffering the consequences. America's refusal to sign the Kyoto Protocol will affect the entire security and freedom of future generations of Tuvaluans.'

Tuvalu has recently embarked on legal action to try to win compensation from the countries emitting most greenhouse gases. 'But how do you put a price on a whole nation being relocated?' Laupepa asked. 'How do you value a culture that is being wiped out?'

(Lynas, 2003)