

Reading 1B

Molly Conisbee and Andrew Simms, 'Environmental refugees: the case for recognition'

Hostile planet – the forces driving displacement

The Pacific island nation of Tuvalu is a string of nine coral atolls, no more than a few metres above sea level at their highest point. People who have become adept at living in a fragile and changeable environment have inhabited the islands for about 2,000 years. But recent changes to the global climate have seriously undermined their way of life.

In 2000 the floods that Tuvalu has every year lasted, unusually, for five consecutive months. This tiny nation faces huge threats from a range of impacts caused by global warming, from storms and drought to rising sea levels. As a result, its population is faced with the prospect of a phased relocation to neighbouring countries. In March 2002 Tuvalu's President, Koloa Talake, announced that he was considering legal action against the world's worst polluters – the nations most responsible for carbon dioxide emissions – at the International Court of Justice.

Climate change affects both the frequency and the predictability of storms and cyclones. Since the 1970s warmer conditions have resulted in greater incidence of cyclones, especially over the western tropical Pacific. As levels of carbon dioxide increase in the atmosphere it is also anticipated that the intensity of cyclones will increase – with wind speeds potentially 10–20 per cent higher than previously.

Weather-related disasters are making life impossible for many communities. But they are not the only culprit. 'Natural' disasters, together with the effects of resource stripping, have displaced millions. The Oxford University analyst Norman Myers estimates that 25 million people worldwide have been uprooted for environmental reasons – more than the 22 million refugees who have fled from war and other persecutions.

Globally, the problems exemplified by Tuvalu are expected to get worse. According to the World Meteorological Organization, 2001 was the second warmest year on record. Since 1976, the global average temperature has risen at a rate approximately three times faster than the century's average. In 2001, the Intergovernmental Panel on Climate Change (IPCC), the group of scientists that advises international climate negotiations, produced its Third Assessment Report (TAR). It projects that over the period 1990–2100 global average surface temperature will climb at a rate without precedent in the last 10,000 years. The result would be a rise in sea levels of between 9 and 88 cm – a huge threat to island and coastal living across the globe.

Coastal flooding not only erodes landmass. It soaks farmland with salty water, making it impossible to grow crops. It can also affect fresh drinking water supplies. Cities such as Manila, Bangkok, Shanghai, Dhaka and Jakarta are already vulnerable to subsidence. On the Carteret atolls off the coast of Papua New Guinea, rising seas have cut one island in half and increased salt levels in the soil to such an extent that fruit and vegetable crops have been killed off. The atoll has about 1,500 residents – who have been surviving on basic rations of sweet potatoes and rice for the last two years. The Papuan government cannot afford to relocate these communities – and, in any case, where would they relocate them to?

The rise in sea levels is only one of the environmental effects of climate change. The change in sea temperature also damages fragile marine environments such as coral reefs. This has a knock-on effect on marine life, crucial to local ecosystems and livelihoods based on fishing. During the last El Niño of 1997–98, some 90 per cent of live reefs were affected. Drought is another consequence of global warming, potentially affecting millions more. During 1997–98 drought destroyed Fiji's sugar cane crop, costing the government US\$18 million.

Overall, according to the International Red Cross and Red Crescent's *World Disasters Report 2002*, in the Oceania region the numbers of those killed by weather-related disasters rose 21 per cent from the 1970s to the 1990s. The numbers of those whose lives were affected rose from 275,000 in the 1970s to 1.2 million in the 1980s to 18 million in the 1990s – a 65-fold increase. These statistics incorporate those affected by events such as cyclones, floods, landslides, droughts and extremes of temperature.

Climate refugees

Despite the predictions, no global assessment of the numbers likely to be displaced by a one-metre rise in sea levels, or even a half-metre rise, has been made. Yet they are likely to prove enormous. Of the world's 19 megacities, 16 are situated on coastlines. All but four are in the developing world. The *World Disasters Report* points out both the human and economic costs involved: 'the most vulnerable areas are found in the tropics, especially the west coast of Africa, south Asia and south-east Asia, and low-lying coral atolls in the Pacific and Indian Oceans. The nations hardest hit will be those least able to afford coastal protection measures and where inhabitants have nowhere else to go.'

A 1998 report by the IPCC summed up some of the regional impacts of climate change. A one-metre rise in sea level would inundate 3 million hectares in Bangladesh, displacing 15–20 million people, it found. Vietnam could lose 500,000 hectares of land in the Red River Delta and another 2 million hectares in the Mekong Delta, displacing roughly 10 million people. About 85 per cent of the Maldives' main island, which contains the capital Male, would be swamped. Most of the Maldives would be turned into sandbars, forcing 300,000 people to flee to India or Sri Lanka. The Maldives, in the words of its president, 'would cease to exist as a nation.'

(Conisbee and Simms, 2003)
