

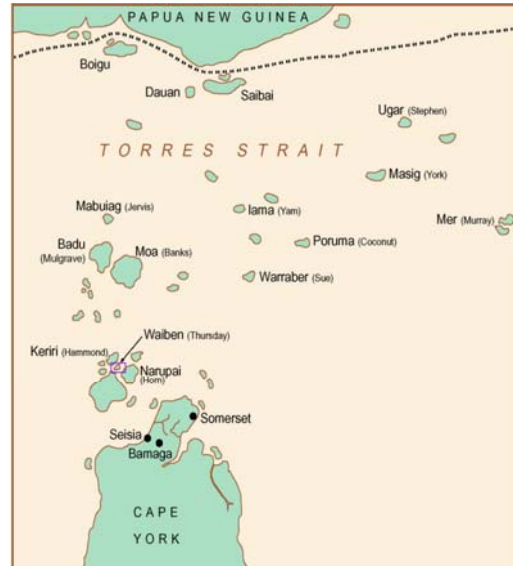
Climate Change in the Torres Strait, Australia

Summary of climate impacts

Lying between the northernmost tip of mainland Australia and Papua New Guinea, the Torres Strait region comprises of hundreds of islands, 18 of which are permanently inhabited. Most people who live there have ancestral links to the islands going back for centuries, giving them unique knowledge of the local climatic and marine conditions. As a result, they are used to natural variations in the climate and associated impacts, such as semi-regular flooding of low-lying coastal areas each year when high tides combine with northwest winds.

Over recent years, Islanders have been observing shifts in the environment around them that cannot be explained by their long-established traditional knowledge, and many are concerned about whether these shifts could be linked to climate change.

Anecdotally, flooding on some islands appears to be getting worse, with cultural sites including graveyards being regularly inundated during recent king tides. However, accurate data on tide levels are not available due to the lack of adequate historic tide gauge records in the Torres Strait. This also makes it difficult to provide Islanders with much needed projections on how the global trend of gradually rising sea levels could affect them. Based on the best available science, it is reasonable to conclude that in the short term, the 'slow onset' rise in the sea level is not an immediate threat to the islands. However, what is of more concern is the combination of even a relatively small sea level rise occurring with stronger winds indirectly caused by climate change, at the same time as naturally occurring high tide. This combination is likely to cause bigger and more dangerous *storm tides*, increasing the risk of flood damage to the local environment and infrastructure.



Temperature rise is also of concern for the Islanders. By 2070, average temperatures are projected to increase by up to 6°C. Rainfall patterns are also likely to become more extreme, with projected changes of between +17 to -35 per cent (in the wet and dry seasons respectively compared to 1990 levels) in the region. This suggests the potential for heavier downpours during the monsoon as well as more extended dry spells.

Likely impacts on the Islands due to climate change include:

- Reduced freshwater availability.
- Greater risk of disease from flooded rubbish tips and changing mosquito habitats.
- Erosion of roads, airstrips, near shoreline buildings from more intense storm tides.
- Degradation of significant cultural sites, such as near shoreline graveyards.
- Change in the location or abundance of plants and animals, such as dugongs and mangroves.
- Change in coral growth or coral bleaching caused by increasing ocean temperature and acidity.

Island leaders have expressed a strong desire to help their communities adapt to likely climate impacts in advance, rather than responding reactively. Due to variation between the Islands, there is no simple adaptation strategy that could be applied to all of them. This means Islanders will need more locally relevant science and planning assistance, as well as greater resources from government to adapt.

To find out more about these issues, check out:

www.sharingknowledge.net.au This project provides regional climate change projections for northern Australia and documents the use of traditional environmental knowledge in adaptation strategies.



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Summary of the legal dimension

Despite the fact that severe storm tides are likely to occur more frequently due to climate change, there has been little action from the Australian or Queensland Government to date to protect the land rights of Torres Strait Islanders. There are also no laws protecting Torres Strait Islanders from the effects of climate change. However, that does not mean that Islanders cannot use the legal system to force government and business to heed their concerns about climate change.

Torres Strait Islanders have a proud tradition of public interest litigation established by Eddie Mabo and others from the island of Mer, whose successful native title claim destroyed the legal myth of *terra nullius*, meaning 'nobody's land', which had been used to deny Indigenous Australians' rights to land following British colonisation. Legal action brought by Islanders could focus on protecting these native land rights, or alternatively on industries contributing significantly to climate change.

At the state level, the Queensland *Environmental Protection Act 1994* includes an offence of causing serious or material environmental harm. It is arguable that coal fired power stations in Queensland that are emitting greenhouse gases are causing environmental harm and contributing to impacts such as greater storm tides in the Torres Strait. One of the benefits of the *Environmental Protection Act* is that it does not require a particular power station to be the only cause of climate change, which is caused by many different factors. The benefit of this type of action is that a Court could order the power station to pay for the costs of repairs to infrastructure caused by storms or even the costs of relocating homes and people. One of the difficulties in bringing such an action is that there may be a number of responses from the power station, including that they had all the necessary approvals.

The law of 'negligence' is used to make people liable for their actions, such as when someone has a road accident due to inadequate maintenance by the local council. It is arguable that Australian governments at all levels have a duty of care to protect the land and culture of all Australian citizens, including the Islanders, by acting to prevent harm to communities from climate change. However, it is worth noting that most negligence claims are made against a particular person or company with clear responsibility for a problem, whereas climate change is a global problem with multiple causes.

Another avenue could be through 'public nuisance' provisions in the law, which cover illegal acts endangering the life or property of others. Public nuisance cases brought in the United States to date have not been successful, but have raised significant public awareness and prompted greater government and business engagement with the issue.

All islands in the Torres Straits have successful native title claims over them. Damage caused by climate change will impact on those rights, particularly if some land area disappears due to sea level rise and extreme weather events. Therefore Islanders may be able to bring compensation claims because their native title rights have been extinguished under the *Native Title Act* as a result of climate change. The Inuit people in North America have brought a much publicised case before the Inter-American Commission of Human Rights about the impact of climate change on their culture. It is possible that international human rights laws may protect the culture and lives of Torres Strait Islanders allowing complaints to be made to the Human Rights Committee of the United Nations.

In conclusion, all levels of government as well as industry clearly need to consider the financial and publicity risks of such legal cases being brought against them, and consider a more mutually beneficial approach of reducing greenhouse emissions while also engaging in appropriate adaptation strategies.

To find out more about these issues, check out:

www.edo.org.au The EDO is dedicated to protecting the environment in the public interest. It provides legal representation and advice, actively pursues environmental law and policy reform, and facilitates public participation in environmental decision making.