



Eroded shoreline at Ile Diamant North West Peros Banhos

### ***Sea level change and shore erosion***

In Chagos, sea level rise has been measured at a little over 5mm per year. Sea level records lasted only about 15 years (late 1980s to 2000), too short for serious analyses, but they match with longer records from the neighbouring Maldives and Seychelles. The rise occurs partly because the seawater volume is increasing for several reasons, and partly because coral atolls slowly subside.

This should be balanced by upward reef growth, which occurs when corals are thriving, but warming temperatures have killed coral growth more than once in the last few years.

Rising water erodes shorelines. This shows up first when the sea strips away thick layers of sand and soil at the water's edge, and this progresses landwards, flooding depressions. Underlying the sand is older and more solid reef rock. This photograph from Ile Diamant, North West Peros Banhos is typical of an increasing number of sites. These palms have been dead for years, and clearly grew for perhaps 40 years before their substrate was stripped away. This site now shows a different, and probably changing, equilibrium between land and sea to the one which existed when these palms grew. This is partly a natural, progressive and seasonal phenomenon, but setbacks to coral growth and rising sea levels accelerate the erosion.

In 2007, flooding up to the stone buildings in Salomon atoll was reported, and there are numerous examples of erosion in Diego Garcia as well.

The **Chagos Conservation Trust** is a charity (Registered in the UK No. 1031561), whose aims are to promote conservation, scientific and historical research, and to advance education concerning the archipelago. The Trust is a non political association.

*If you would like more information on the publications or membership, please contact the Secretary ([simonhughes@hughes-mccormack.co.uk](mailto:simonhughes@hughes-mccormack.co.uk)),*

**or visit [www.chagos-trust.org](http://www.chagos-trust.org)**