

Sea Level Changes in the Indian Ocean: Observational facts

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In order to assess the reality of sea level changes in the Indian Ocean, we need (here like everywhere else) investigations carried out by real sea level specialists in firm field studies in areas under discussion themselves. Computer modelling by persons not even having visited the sites in questions is simply not good enough.

In year 2000, we started an international sea level project in the Maldives, where several distinguished sea level specialists took part. Personally, I have been there six times, out of which three were as leader of major research expeditions.

What is to be seen in nature itself, from island to island, is clear and straightforward: there is no ongoing rise in sea level at all. At about 1970, sea level fell by about 20 cm, and has remained quite stable there after (i.e. for the last 30-40 years). We have investigated several different shore environments (open coasts, rock-cut platforms, sandy shores in erosion as well as in progradation, lagoons, lakes, fens, etc.) with respect to stratigraphy, morphology, biology and chronology (with 55 new C14-dates). Such an overwhelming mass and quality of observational facts must, of course, outdo idle talk (like what is being claimed by IPCC and exaggerated by President Nasheed). Scientific reports are published in, for example, *Global and Planetary Change* (v.40, p.177-182, 2004), *Internationales Asienforum* (v.38, p.353-374, 2007) and Chapters 6 and 7 in. "*Evidence-based Climate Science*", D.J. Easterbrook, Ed. (Chapter 6, p. 185-196, Chapter 7, p. 197-209, Elsevier, 2011)

In 2009, I visited the Sunderban delta area in Bangladesh and was able to observe clear evidence of strong coastal erosion but no rise in sea level. The stratigraphy, morphology, vegetational evolution and habitation record a minor sea level lowering at around 1960, followed by 40-50 years of stable sea level. Those sources of information are superior to local tide-gauges in the Sunderban delta, which seem quite unstable. A scientific report is published in *Energy & Environment* (v.213, p.249-263, 2010).

It seems significant that both the tide-gauge of Mumbai and Visakhapatnam in India record a significant sea level drop in 1955-1962 followed by 50 years of stable sea level (*op.cit.*).

In the Laccadives, the locals are quite aware of the fact that sea level is not at all in a rising mode today, rather that new land has been added, leaving previous shore to become overgrown and invaded by terrestrial snails.

In conclusion, there is no sea level rise going on at the moment in the Indian Ocean. All talk about an alarming ongoing rise in sea level is nothing but an illusion (further developed in *Global and Planetary Change*, v.40, p.49-54, 2004, *Quaternary International*, v. 221, p.3-8 and *21st Century Science & Technology*, v. Winter 2010/11, p.7-17, 2011) to be abandoned the sooner the better, because *it steals the limelight from real problems in the real world.*