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This story deals with anecdotal evidence of recent increases in coastal flooding in both Tarawa (Kiribati) and Pohnpei (FSM). In both cases the observations are consistent with the scientific evidence.

For example, the Climate Risk Profile (CRP) for Kiribati (see attached) has a focus on Tarawa. Among other findings, examination of daily mean values of sea level for Betio, relative to mean sea level, shows large interannual variability and extremes (both high and low) in sea level. The major anomalies are associated with El Niño events. A long term trend of increasing sea level is also evident. The observed long term trend in sea level for Betio is 5 mm/yr. This is greater than the estimated range of global sea-level rise over the past century, namely 1 to 2 mm/yr. The National Tidal Centre, Australian Bureau of Meteorology also reports a 5 mm/yr increase in relative sea level at Betio for the period of record, in this case after vertical movements in the observing platform and the inverted barometric pressure effect have been taken into account. Satellite-observed, five day averaged sea level anomalies for a grid square centred on South Tarawa also show . Data are for 1992 to 2002. The large anomalies, again associated with El Niño events. An increasing trend in sea level is again evident, but it is very small relative to the interannual variability.

Even more extreme high sea levels are evident in the mean hourly sea level data. Figure 4 in the CRP presents the maximum mean hourly sea level, by year, for Betio. Such exceptionally high sea levels are associated with flooding, accelerated coastal erosion and salt water intrusion into groundwater. Extreme high sea levels associated with El Niño events are clearly evident. The long term trend in the extreme hourly sea levels is 2 mm/yr. This is not as great as the trend for the daily mean sea level.

A study of coastal flooding in Sokehs (Pohnpei) has been undertaken and is reported in ADB (2005). The study also examined flooding in a community in Rarotonga, Cook Islands. The publication can be downloaded at www.adb.org/Documents/Reports/Climate-Proofing/main-report.asp Not only does it examine the incidence and consequences of flooding, but also identifies cost effective and culturally appropriate ways to reduce the damage from current and anticipated future flooding events.