

HIGH BACKGROUND RADIATION AREAS PRESENT ON THE SOUTH COAST AND THE EAST COAST

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Enhanced background radiation levels were reported in Kalutara, Beruwala on the South-West Coast and also on the West Coast. These enhanced levels of radiation are due to the presence of the beach mineral, monazite sand, which contain ^{232}Th and its daughter products and also to smaller extent ^{238}U .

Our subsequent investigations have shown similar high background radiation areas on the South Coast at Dondra, Kaluwella near Galle and from Pulmoddai to Kokilai Lagoon, Tirrukkovil on the East Coast. Background radiation levels at certain points at Dondra, Kaluwella, Pulmoddai, Tirrukkovil are as high as 60, 14, 18 and 7 times that of the 'normal' areas respectively. The radiation levels along the coast in these areas and a recording of the variation of gamma levels with time at a 'hot spot' at Dondra are reported. These show the variation of radiation levels with pattern of deposition of monazite sand on the beach. Gamma spectroscopic analysis of sand samples from Dondra and Pulmoddai have shown that the radioactivity is due to the presence of ^{232}Th , ^{238}U and their decay products.