

## Placer Minerals Deposits of South West Coast of India: Their Sustainable Exploitation and Environment Management

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The beaches of SW coast of India are being mined for placer mineral deposits rich in ilmenite, leucoxene, rutile, sillimanite, zircon, monazite, garnet, etc. In the recent years the mining of these minerals have brought considerable attention of the ill effects of commercial mining. The exploitation has given rise to many problems. The industry is often forced to address the problem of coastal erosion on one side and the environmental and socio-economic problems on the other side. All adhoc measures to alleviate the crisis were not able address the issues. A scientific and at the same time, holistic approach is needed for the long term solution, which only can solve the problem and mitigate the damage caused to the coastal ecosystem. The sustainable exploitation is suggested on a well-thought-out plan to ensure the optimum recovery of the mineral wealth with minimum environmental impacts. The two important aspects to be addressed for a long term strategy for the placer development are (i) How much mineral accumulates on the beaches or near shore every year and how much of it can be mined without causing the degradation of coast and, (ii) How can the offshore and inland deposits be mined with minimum environmental damages and with least socio-economic problems. In this paper the sustainable mining strategy is suggested through sediment budgeting and Integrated Coastal Zone Management (ICZM) plan approach.

### Biography:

Dr. Prakash T. N. is a Marine Scientist by profession. He is working at National Centre for Earth Science Studies (NCESS) at Trivandrum. He is heading the Coastal Processes Group of NCESS and has over 30 years' of research experience in the Beach and Coastal Processes including the Management aspects. He has published more than 40 research papers in national and international journals including a book and two field-guide books.