



***Geosciences Division
Physical Research Laboratory***

Tuesday Seminar

Biogeochemical investigation on eastern Indian estuaries

Abstract

A comprehensive investigation was conducted at Hooghly estuary and major estuaries of Indian Sundarbans (Saptamukhi, Thakuran and Matla) during summer-time, 2016. The estuaries of Sundarbans were mainly marine dominated (polyhaline) while a sharp salinity gradient was noticed for the Hooghly estuary. At this study, stable isotopes have been widely used for the first-time to understand hydrological as well as biogeochemical processes (mainly carbon) operating within these two contrasting estuarine systems (anthropogenic vs. mangrove dominated estuaries). Variability of $\delta^{18}\text{O}$ and δD within the given sampling stretch clearly indicates proper mixing of fresh and marine water at Hooghly estuary while the case was not so effective for the estuaries of Sundarbans. Moreover, during summertime impact of these estuarine systems on regional climate will be also discussed based on computed emission of radiatively active trace gases (CO_2 and CH_4) from water - atmosphere interface.

**Speaker: Dr. Manab Kumar Datta
PDF, GSDN**

Date	Time	Venue
09-May-2017	16:00 hrs	Ground Floor Lecture Hall

**All are invited to attend and participate in discussion
Tea at 15:30 hrs**