Geosciences Division
Physical Research Laboratory

Tuesday Seminar

Indian monsoon intensification and its variabilities on millennial and geological time scales

Abstract

The Asian Monsoon is a substantial component of the global climate system which affects over 3 billion people living in the area and this is estimated to be over 4 billion by 2050. This large population depends on monsoon rainfall for agriculture, hydroelectric generation and industrial development as well as basic human needs and requires strategies to cope with variations in the timing, intensity and duration of the monsoon. The Asian Monsoon is composed of two sub-systems; the Indian monsoon (also called South Asian monsoon) and the East Asian monsoon. The Indian Monsoon (IM) has displayed a changing relationship with ENSO over recent decades that may be related to global warming and has become less predictable in the last 25 years. Since we have only one century of instrumental data for the IM we must look to paleoclimate proxy records to better understand past IM variability and improve future predictions.

New results of mineralogy and radiogenic isotope compositions suggest Indian monsoon well developed around 25 Ma ago and controlled by variable factors at different time scales. The millennial scale variabilities were predominantly controlled by Northern Hemisphere Glaciation (NHG) whereas Himalayan tectonics played vital role in larger scale variabilities. Results from Andaman Sea and Indian Ocean along with Arabian Sea will be considered to discuss Indian monsoon at different time scales.

Speaker: Dr. Sajid Ali
PDF, GSDN

Date	Time	Venue
22-December-2015	16:00 hrs	Ground Floor Lecture Hall

All are invited to attend and participate in discussion

Tea at 15:30 hrs

Neeraj Rastogi, Seminar Secretary, Geosciences Division