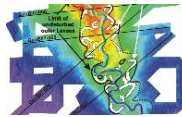
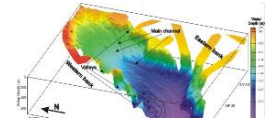


FS Sonne Cruise **SO304**
Bengal Schelf & Fan
Colombo - Colombo



Weekly Report No. **7**
1.4. - 7.4.2024



Since we left Bangladesh over Easter, we made use of our way back to Colombo, after a transit through the Indian EEZ, to collect multibeam and sediment echosounder data from the evening of April 1 onwards to complete some of the mapping from before. At high transit speed, data quality was still amazing, thanks to the extremely good weather during the whole cruise.

And for a last element of our research we were making use of the fact that on the transit back to port, seismic acquisition is less time-consuming, and we decided to continue some survey work, which we had to interrupt at the very beginning of the cruise due to some technical problems. We surveyed the so-called 85°E Ridge, which is a peculiar basement structure, likely affecting the pathways of sediment transport in the middle Bengal Fan due to periods of very rapid uplift. Due to the good regional stratigraphy, we expect to quantify uplift rates and determine periods, where sediment flux was forced into the central Bengal Fan.

Seismic gear was deployed on April 3 around noon time for the last two days of surveying. Three lines crossing the ridge brought us back to 8°N, where we also crossed a previously unknown outcrop of this feature. Right after noon time, seismic acquisition was finished with success, and we left for two more hours of hydroacoustic work, until we terminated all data acquisition when we entered the EEZ of Sri Lanka.

Arrival at the pilot station of the port of Colombo was planned for 6 am on April 7, to finish the cruise one hour later. R/V SONNE safely arrived in the area, and, after some confusion about the permission regarding the port call, we could finally finish Cruise SO304 at the berth. There will be no further program except finalizing the container packing and unloading, which will be unfortunately delayed by a couple of days.

The science crew has to thank the ship's crew for a very professional, friendly and flexible operation, dealing also with many administrative and permission issues throughout the cruise. But at the end the cruise has been very successful, not exactly matching the proposed research program, but quite a few new and exciting data and samples were acquired, and we are happy to work them up in the future.

Volkhard Spieß, Tilmann Schwenk