

Interactive comment on “Monitoring of seasonally variability and movement of suspended sediment concentration along Thiruvananthapuram coast using OLI sensor” by Bismay Ranjan Tripathy et al.

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Q: In abstract high concentration of sediment is 92 mg/l. But in the corresponding figure the maximum value is 0.92 mg/l. Is there any validation of these values reported?

Ans: The statement has been updated in abstract section as per figure's legend and that is considered as corrected value of SSC estimation Q: Very high concentration of sediment concentration is shown at -80 to -100 m depth in Figure 5. Then how can you write the conclusion as "the suspended sediments were indirectly proportional to bathymetry and distance from the shoreline and directly proportion to wave direction and littoral current at off-shore". No data on littoral currents also presented in the

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manuscript. Ans: The model reveals that the higher concentration of SS at -80 to -100 m depth compared to deeper depth and distance away from shoreline. The higher SSC estimated within lower depth and short distance and it means higher SSC spread within the lower depth covers the average distance less than 2 km from shoreline, hence it is clearly depicted the "suspended sediments were indirectly proportional to bathymetry and distance from the shoreline and directly proportion to wave direction and littoral current at off-shore". Q: In the methodology the source of wave data is not mentioned. Reference to the annual rainfall (826 to 1456 mm) is to be added. Ans: The primary aim of this paper is to develop a generic model for SSC estimation using OLI image; it meant by the algorithm which is proposed to estimate the SSC specifically using OLI and the derived output has been validated through in-situ survey as a part of another study Q: September cannot be a post-monsoon for the Kerala coast. It is a monsoon month Ans: As per Kerala state cultivable pattern and CGWB report and IMD declared monsoon season – June – August (end of the month) is pre monsoon; September – November is post monsoon (however this is the north-east monsoon period for the Indian State lies along the shoreline of Bay of Bengal) ; March – May is a summer.

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