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Interactive comment on "Observations and scaling of tidal mass transport across the lower Ganges-Brahmaputra delta plain: implications for delta management and sustainability" *by* Richard Hale et al.

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The Hale et al. manuscript is a fine addition to the very sparse literature on water and sediment dynamics in the Ganges-Brahmaputra coastal zone. I think the paper, which should be published, could be improved in several ways.

1. The dataset is sparse, which is understandable given the difficult logistical conditions to work in this setting. However, absence in particular of CTD cast data synchronous with the OBS cast data, left a number of questions in my mind about the possibilities of

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water column salinity stratification in the channels during the dry season, and sediment stratification and bed storage and or sediment convergence during both studies at slack periods and seasonally. I realize that the authors can't fully address these issues, but I think some of the questions could be allayed by presenting some of the original data– ADCP transects of velocity magnitude, direction and backscatter intensity, and OBS profiles for these example sections. None of this data that is used to calculate fluxes is presented as is, and, seeing some of it would be beneficial to the reader.

2. The methodology is lengthy. If necessary, it could be split off into a supplementary methods section, that would allow greater detail on some of the data manipulations to arrive at fluxes that were only briefly covered in the existing version.

3. I believe some mention of the potential importance of tropical cyclones needs presenting in the intro and discussion. That is, these large events may have an impact on sediment fluxes in the system that may or may not exceed the seasonal and tidal scale processes. Although there is no data presented here, it should be mentioned as a possible and unresolved control in the system.

4. line 166. OBS's do not measure SSC's, they measure turbidity and have to be calibrated. Hence, while the profiler OBS was calibrated as discussed, how did SSC's get derived for the long-term station at Sutarkhali?

5. line 256. This mentions ignoring bedload transport but, what is neglected is sand transport in suspension (bed material load transport). Since water sampling was not done isokinetically (Niskin), this component was missed or undersampled. It appears from the water flux rates (no adcp velocity profiles shown) that the tidal energies are high enough during max ebb and flood to transport sand. I would mention this caveat to be fair about what you are actually measuring (fine flux).

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