

## ***Interactive comment on “Changes in detrital sediment supply to the central Yellow Sea since the Last Glacial Maximum” by Hyo Jin Koo and Hyen Goo Cho***

**Neeraj Awasthi (Referee)**

[aneeraj.geology@gmail.com](mailto:aneeraj.geology@gmail.com)

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This work study provenance and dynamics of sediments from a core raised from the Central Yellow Sea using clay mineralogy and geochemical compositions since the Last Glacial Maximum. Based on the patterns of various proxies, the core was divided into four units as Unit 4 (15.5–14.8 ka), the bottommost, Unit 3 (14.8–12.1 ka), Unit 2 (12.1–8.8 ka) and Unit 1 (< 8.8 ka), the topmost. Comparison of mineralogical and geochemical compositions suggested the late last deglaciation sediments (Units 4 and 3) originated from all potential provenance rivers like Huanghe, Changjiang and western Korean rivers. The coarser sediments in Unit 3 were exclusively de-

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rived from Huanghe. In Unit-2 (early Holocene), the provenance of fine sediment changed from the Huanghe to the Changjiang whereas the source of coarse-grained sediments was most likely the western Korean rivers. The Changjiang source was dominant during the deposition of Unit 1 sediments with minor contributions from the western Korean rivers. The shift of river mouth positions, tide levels, and sea circulation patterns in tune with the fluctuating climate and sea levels were mainly held responsible for varying patterns in various proxies and transport mechanism from the river sources. The manuscript will be important work for researchers working on provenance of marine sediments and understanding sea circulations in the past. The manuscript is well-written in terms of English and in good structure. Scientifically, the interpretations are well-supported by the data and illustrations and there are no specific questions/issues. Some modifications are suggested in lines 154-164. Some citations are not referenced and some references are not cited. Other minor comments/technical corrections are highlighted/given in the annotated pdf.

Please also note the supplement to this comment:

<https://os.copernicus.org/preprints/os-2020-60/os-2020-60-RC1-supplement.pdf>

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