

**Responses to Anonymous Referee #2's *Interactive comment on*
"Biogeochemistry and ecosystems of continental margins in the
western North Pacific Ocean and their interactions and responses to
external forcing – an overview and synthesis" by K.-K. Liu et al.**

General Comments

This paper is an overview and synthesis of the papers to be published in a special volume in Biogeosciences. The authors seem to have done a good job in summarizing the findings of the papers. One suggestion to the authors is to beef up the introduction section a bit more to stress the importance of the studied region in the global context. Also, it will be good if the authors can find a better way to present Figure 4. The figure summarizes the essential findings of many papers in the special issue yet it seems to lack the necessary conceptual detail. In addition, careful perusal paying attention to minor editorial details will improve the quality of the paper.

RESPONSE: We are grateful for the referee's positive appraisal of our work and for the constructive comments, which are carefully heeded. We will strengthen the Introduction by emphasizing the importance of the study area, which presents the best example of interaction between huge freshwater discharges from large rivers and in the interface zone between the land and the ocean. It also bears witness to the strong impacts of Anthropogenic stressors from the dense human populations on the marine ecosystems. The complicated topography as well as the pronounced climate oscillations/changes makes the study area exhibit a wide range of physical and biogeochemical conditions that control the ecosystem structures and functions. We will pay special attention to Figure 4 making it conceptually more robust and comprehensive and also to details of the presentaion.

Specific Comments

Followings are some suggested editorial comments.

P11296: be consistent in presenting values. For example, both million km² (line 9 and 26) and 10⁶ km² (P11297, Line 9) are used.

RESPONSE: We will unify the format of the presentations.

Figure 1: the map as is too small. Some texts are almost illegible. All geographic names need to be indicated clearly in the map (for example, the Sulu Sea is not indicated). In the text, also “Fig. 1a” can be found at a few places although there is only one map in Figure 1.

RESPONSE: The original figure is much larger. We will plea to the copy editor to enlarge the figure. We will also add the missing geographic names mentioned in the text. Figure 1a should be Figure 1.

P11296 Line 29: Tsushima/Korean Strait -> Tsushima/Korea Strait

RESPONSE: The spelling will be corrected accordingly.

P11297 Line 22: Secondary -> Second

RESPONSE: We will make the change accordingly.

P11299 Line 2: define KBC here, and use KBC in Line 7

RESPONSE: We will make the change accordingly.

P11302 Line 19: lower values -> lower Omega a values

RESPONSE: We will make the change accordingly.

P11305 Line 2: Sheng et al -> Shang et al. (?)

RESPONSE: We will make the correction.

P11306 Line 22: are connecting -> connect

RESPONSE: We will make the change accordingly.

P11311 Line 5: please pay attention to the number of significant figures. 307.3 should be presented with few number of significant figures (for example 3.1×10^2 or 307) depending on the uncertainty of the estimate.

RESPONSE: We will pay attention to the number of significant figures.

P11312 Line 4: He et al. (2013) are -> He et al. (2013) is (or be consistent in treating et al., as singular or plural)

RESPONSE: We will unify the usage throughout the text.

P11314 Line 5: bottom water of the -> bottom water

RESPONSE: We will delete the redundant words.

P11315 Line 28: observations reveals -> observations reveal

RESPONSE: We will make the corrections.

P11315 Line 26-P11316 Line 7: The introduction of the CARIACO study may be removed from this section

RESPONSE: We will rephrase the CARIACO example making it more succinct yet exemplifying how sustained ecosystem observations can reveal major shifts.

Figure 4 caption (6th line from bottom): supply from mar ine -> supply from marine

RESPONSE: We will make the correction.

P11325 Table 1: BS (Bohai Sea?) is missing

RESPONSE: We will add Bohai Sea to the list.