

## **Response to the comments made by Reviewer 3: Anonymous**

We thank the Reviewer for your remarks about the scenario definitions. Please find below responses to the each of your remarks in a comment-by-comment basis.

**R3-Comment 1: In scenario 1, I would suggest to include a more realistic representation of the spatial distribution of tidal flats in the inner estuary previous to the construction of Daule-Peripa dam.**

What we try to assess in scenario 1 is the influence of the regulated discharges in the Daule river due to the construction of the Daule Peripa dam in the upper basin. Moreover, we address the representation of the decimated tidal flats before the construction of shrimp farms in case 2.

**R3-Comment 2: The scenario 4 did not consider the increment on mean sea level (MSL) due to thermal expansion because of El Niño conditions.**

In the manuscript we treat increased riverine input due to El Niño and MSL rise separately. So, we define case 4 based on the increased riverine input, and case 5 based solely on MSL rise. By comparing figures 11 and 12 it can be seen, on a yearly basis, that sediment transport rates due to increased discharges are much larger than for the sea level rise case. In that regard, the results of a combined case are not going to differ much from those of case 4.