

Dear Editor,

Thank you for your thorough and constructive comments on the manuscript. We have addressed each of the points raised and amended the text accordingly and feel the manuscript is much improved as a result. We have implemented all the minor grammatical corrections suggested by the editor. Below is a point-by-point response to the more substantive points raised, with the original comments in roman black text, and our responses in italicised red text. In our response we have highlighted the line numbers in the revised manuscript at which point we have made edits to the text. We also note here that we have added the © Google Earth copyright icon as requested by the file validity check, to the figure 2 caption, but note that none of the figure panels display Google Earth Imagery, rather panels A and B display PlanetScope imagery (which is credited in the caption) whilst panel C is an aerial image taken by the lead author.

Yours faithfully,

A handwritten signature in blue ink that reads "Chris Hackney". The signature is written in a cursive, slightly slanted style.

Dr Chris Hackney (on behalf of all authors)

Point-by-point response:

Ln 54: I wonder if it would help at the outset to specify the density you assume in the volume-to-mass conversions throughout.

We thank the editor for this comment and agree it would be useful to specify this detail here. We have altered Ln 54 in the revised manuscript so that it now reads "31 million m³ yr⁻¹ assuming a density of sand of 1,600 kg m⁻³ 55 following Bravard et al., 2013".

Ln 63: Addition of "we" needed

Agreed and corrected.

Ln 85: Delete "will increase"

Agreed and deleted.

Ln 100: Addition of "related too"

Agreed and added.

Ln 102: Addition of "is"

Agreed and added.

Ln 133: Suggest deletion of "sensitive and"

Agreed and deleted.

Ln 160: Delete "at"

Agreed and deleted.

Ln 164: Addition of "the method"

Agreed and added.

Ln 189: Addition of "(ADCP)"

Agreed and added.

Ln 210: Addition of “increase of”

Agreed and added.

Ln 210: Change “This value” to “The 2020 extraction volume”

Agreed and changed.

Ln 220: Addition of “range of estimates of”

Agreed and added.

Ln 210: Change “undergone” to “had”

Agreed and changed.

Ln 267: Addition of “: negative values represent a loss of riverbed sediment due to incision” to clarify what that negative means incision not deposition”

We agree this change is needed to avoid potential confusion with the reader and have made the change accordingly.

Ln 332: Addition of “Mt”

Agreed and changed.

Figure 1 caption: Presumably other black lines are rivers?

We thank the editor for highlighting this and have altered the caption in the revised manuscript to say “Major river channels and lakes are highlighted by blue lines” to avoid any confusion.

Figure 2 caption: Addition of “ μ = mean, σ = standard deviation)”

We thank the editor for suggesting this and have added this clarification to the end of the figure caption.

Figure 5: Presumably the legend should read “sand transport”

We thank the reviewer for noticing this. Yes, there was a typo in the figure legend, this has now been corrected to correctly report that the orange shaded area represents sand transport.

Figure 6: Maybe add another longitude mark in each panel for scale

Unfortunately, the scaling and location of the map within the panels means that an additional longitude mark would sit almost exactly on the right hand side box boundary of each panel. Having tried to add an additional mark, we have decided that the outcome looks messy and prefer the original figures. Therefore we have not made any changes to figure 6.