First, we would like to thank Patrick Nunn for his review and apologize for responding late to his review.

This is an excellent paper, well worth publishing. Its main strength is in showing how precise data about specific-site futures can be obtained and used for planning purposes. This approach deserves to be much emulated.

- ⇨ We thank you for your appreciation of this work.

I have many small comments that should be addressed in revision.

Title: I don't know why 'nuisance' is in the title – it is not mentioned in the Introduction – in fact not until section 3.5, then it is not defined. Also is "chronic nuisance" a contradiction? Should it be "chronic/nuisance"?

- ⇨ We agree that nuisance is not necessary in the title. In fact, the literature is using different terms for the same phenomenon (high-tide flooding, chronic flooding and nuisance flooding). It seems to us that chronic flooding is appropriate. The term "nuisance" flooding makes assumptions on the impacts for human activities. This has been corrected in the title, lines 27 and lines 233.

Line 19 – lowest not smallest

- ⇨ Thank you. This has been corrected.

Line 20 – is not are – maybe the entire manuscript would benefit from being read for clarity.

- ⇨ Tank you. This has been corrected. The entire manuscript is being proofread by all coauthors to minimize English errors.

Line 21 – this However can be substituted for Yet – However is a clumsy word – the text would benefit from having the word However taken out wherever it is used.

- ⇨ Thank you. The word "however" is used approximately 20 times in the discussion paper and is nowhere necessary. We have rephrased these sentences.

Line 69 – island names are repeated

- ⇨ Thank you and sorry about this mistake

Line 88 – seem not seems

- ⇨ Thank you. Done.

Line 127 – delete height

- ⇨ We agree. Thank you.

Line 129 – this sentence is fine but add the point that such 'conversion' is highly unlikely to happen

- ⇨ We agree that there is currently no strong sign that this transformation is being initiated. We have mentioned this point and cite Nachmany and Mangan (2018) to support this statement. Nachmany, M.; Mangan, E. *Aligning National and International Climate Targets*. 2018. Available online: **http://www.lse.ac.uk/GranthamInstitute/publication/targets/** (accessed on 04 November 2020).. The sentence now reads: "Yet, there is no strong signal that such a transformation is being initiated (Nachmany and Mangan, 2018). Furthermore, we do not

know how future energy and transportation infrastructures will look like after such a transformation. This makes any assessment of their vulnerability highly speculative."

Line 175 – identify not upraise

⇨ Thank you: here we have used the term "evaluate" because the techniques provide some quantitative information (although with large uncertainty).

Line 183 – perhaps not presumably

⇨ Thank you, done.

Line 221 – datasets

⇨ Thank you, done.

Line 228 – change 'meter' to 'horizontal meters'

⇨ Thank you, done.

Line 233 – define nuisance flooding

⇨ Nuisance flooding is used in several papers addressing the same problem of high-tide flooding (e.g., Jacobs et al., 2018; Moftakari et al., 2015, 2017). However as discussed above we agree with the reviewer that the term 'chronic flooding' is more appropriate in the context of our study. We have changed the sentence accordingly.

Line 254 – will everyone know what subduction earthquakes are? Perhaps add 'low-angle thrust' in brackets?

⇨ We agree and included 'low angle thrust' in brackets after "subduction earthquake".

Line 326 – I don't understand how the 100-year return figure can be helpful in a subsiding context – surely the point is that the 100-year surge will now become a 20-year one?

⇨ We agree that this can be confusing: the Krien et al. study has modelled surge and wave setup from a large datasets of cyclones. However, it applies for present-days bathymetry and sea-levels. We have removed this reference and only mention observations of past cyclones (Hugo, 1989 and David, 1979).

Line 349- remainder

⇨ Thank you

Line 364 – some more information about the groundwater rise and stormwater runoff would be helpful

⇨ Thank you for this comment. We have investigated further the technical/engineering literature to precise this issue, with the additional help of our colleague Benjamin Seux, hydrogeologist (now cited in acknowledgements). First it appears that there is few information on the impacts of sea-level rise for groundwater salinization and the groundwater levels. A report published in 2011 (in French) provides the state of the knowledge on this issue i.a. in Guadeloupe, and we are not aware that more precise observations or modelling work has been done since the publication of this report. https://www.documentation.eauetbiodiversite.fr/notice/influence-de-la-montee-du-niveau-de-la-mer-sur-le-biseau-salin-des-aquiferes-cotiers-des-drom0. This report is not conclusive on the topic of groundwater levels. Hence, we just note, as noted by

Bourdon and Chiozzotto (2012) already, that changing groundwater levels may play a role (as expected on a former mangrove). We also note that the aquifer we are considering in our study is probably not a priority in terms of hydrogeological investigations, as others are more critical for water resources management.

- ⇨ We found some further evidences (DEAL, 2015) suggesting that rainfall and water runoff should play a role in the observed phenomena. These phenomena take place not only during cyclones but also during seasonal heavy rainfall events and can temporarily challenge water drainage systems. They affect primarily urbanized area such as our sites of interest, where soil sealing prevent water from infiltrating the ground. We added these precisions in the manuscript.
  DEAL. 2015 – Cartographie du territoire à risque d'inondation important (TRI) – Centre Guadeloupe. Rapport de présentation,[Mapping territories at risk of important innundation – Guadeloupe Center – presentation report] 53 pages.Available : http://www.guadeloupe.developpement-durable.gouv.fr/IMG/pdf/20150400_tricentre_i.pdf (accessed 11/11/2020)

Line 383 – chronic flooding

- ⇨ Thank you - corrected

Line 385 – years

- ⇨ Thank you corrected

Line 395 – explain why this should be a challenge (don't just imply it will)

- ⇨ We now precise that raising ground levels in a number of places simultaneously could be a challenge for port maintenance operations due to limited resources.

Line 405 – flooding events – and 'challenge' not 'game changer'

- ⇨ Done, thank-you.

Line 429 – what are these non-cyclonic waves? Tsunamis? Elaborate

- ⇨ Here we are referring to seasonal waves and how they may affect tide gauge measurements through a wave-setup. We precise now precise that the energy of seasonal waves is too small in the area of interest to significantly affect the tide gauge. Yet, it is true that tsunami risks are a reason of concern in this area. To further support this statement, we now refer to another technical report (Pedreros et al., 2007).
  Pedreros, Rodrigo ; Terrier, Monique ; Poisson, Blanche (2007) - Tsunamis : Etude de cas au niveau de la côte antillaise française. Rapport de synthèse. BRGM/RP-55795-FR, 72 p., 8 ph.

Line 436 – change 'just' to 'anything between'

- ⇨ Thank you – the sentence has been changed to: "the number of flood days is projected to increase drastically under RCP8.5 at the latest two decades after the first flood event has occurred"

Line 436 – delete regional

- ⇨ Done thank you.

Line 442 – before rapid add 'expected'

- ⇨ Done thank you.

Line 443 – change 'centimeter allows to buy' to 'centimeters buys'

- ⇨ Done thank you

Line 448 – what sort of new infrastructure? More details would be of interest to readers. What about floating port facilities?

- ⇨ In fact, we believe that the most obvious example here can be the diesel thermal electricity plan, which is located in Jarry and could be replaced be renewable energy production in other areas. We have provided this example. We also understand that the suggestion of floating ports is relevant to consider as there are already floating embankments for ships up to 35m ling in the harbor of Guadeloupe. However, we have no expertise in this area and we are not sure that it can perform well for the activities in the port of Guadeloupe. Therefore, we have not included it as an example.

Line 449 – change area to areas and add citation to (Kumar and Taylor 2015)

- ⇨ We agree that this reference is relevant here, and we added it. Thank you for raising our attention to it.

Kumar, L., and S. Taylor. 2015. "Exposure of coastal built assets in the South Pacific to climate risks." Nature Climate Change 5 (11):992-+