Response to reviewer 2

Dear reviewer, thanks a lot for your valuable comments. We considered them carefully and will take them into account for the preparation of the revised manuscript.

Comment		Author response
When calibrating and validating a model, both error and correlation metrics should be computed based on modeled and observed data. The use of indexes such as NRMSE, BIAS, Pearson's rho etc. allows to assess which model setting works better during calibration, and/or which model provides a better fit with respect to measured data. Here, it seems that the Authors only evaluated the goodness of fit of the curves in Figures 4 and 6 at naked eye, which of course does not suffice and cannot therefore be accepted.		Dear reviwer, according to your comment we calculated the suggested values for NRMSE, Pearsons r and BIAS. NRMSE for wave height and wave period ranged below 0,5 which is typically considered as acceptable, with some are even below 0,2. BIAS for wave heights ranges between +0,07 and -0,18. Pearsons r shows a positive correlation for all wave heights and almost all wave lengths; mostly in the range between 0,3 - 0,9. Altogether we consider this as acceptable level to follow the suggested approach of our manuscript. For all calculations, transect 2 thereby showed a better agreement between measured and modelled values than transect 1. The numbers will be provided and explained in the revised version of the manuscript. For the 2d model, there was already a calibration process, improving the RMSE stepwise, which was given in the supplementary materials 7. However, for the 1D model we have to point out that the model can only be validated as SWAN1, besides the input of wave conditions, wind conditions and bathymetry, gives no further options for optimization, e.g. arranging the bottom roughness or adding tidal effects.
English grammar is very hard to follow. I am no native speaker, but I found several typos/weird sentence constructions throughout the text. See below for a few examples (but please note the list is not exhaustive):		Thanks for your recommendation. Before the resubmission of the revised version, we will perform a professional proofreading of the whole manuscript.
Line 29: please review the wording. In the present from it seems like there are two coastal stretches in the whole country, which is obviously not the case. Also, please do not use capital letters after colons.		The text was changed according to your recommendation and the whole text was checked for capital letters after colons!
Lines 31-32: the two sentences are not related to one another. Therefore, you should remove "However". Actually, the whole sentence about Vietnam's economy is not really well suited there.		The text was changed according to the recommendation and the sentence about the economy was skipped

Comment		Author response
Line 59: ofthen -> often. Same at line 90.		The text was changed in the revised manuscript.
Line 73: depending -> dependent (or "tidal ranges show different intensities depending on" or something like that).		The text was changed in the revised manuscript.
Line 92: "which approximately equals to 55 km for the 93 MD are." This sentence makes no sense to me.		According to your suggestion, the text was changed: "More accurate climate reanalyzes like ERA5 (ECMWF Reanalysis 5) do not consider the relevant areas close to the coast as they typically start with around 10 km distance and comprise a grid resolution of 0.5°, which approximately equals to 55 km² for the MD."
Line 98: modell -> modeling. Please also add the appropriate reference to the SWAN model.		We added an appropriate reference (The Swan team, 2023) to the text.
Line 152: The paragraph is unclear. Please rephrase.		The text was changed to a more clear statement: "To compare these measurements with the hourly available wave heights and periods from ERA5, an on hour average was calculated over the same timesteps from the measured data and later used for verification. "
Line 247: where -> were. See also at line 256.		The text was changed in the revised manuscript.
Line 250: what does "unconfident" mean?		"unconfident" was changed to "unrealistic"
Line 259: preiods -> periods		The text was changed in the revised manuscript.
Line 264: there is a warning message due to a missing link. More attention should be put on the text when submitting a manuscript.		Thanks for this hint, you are totally right. We apologize for not checking the manuscript with the appropriate accuracy before we submitted it to the journal. The missing link was added!
Line 268: later -> latter.		The text was changed in the revised manuscript.
If I understood correctly, the main advantage of using a 1D approach is that it only needs wave data defined at a single location to be used as boundary conditions. But then, why not to use a 2D grid assuming the same wave data as homogeneous along the grid sides?		The goal of our research is actually to verify whether 1D could be used instead of 2D, specifically for the case of the Mekong Delta. In this case using 1D would be much more economic in terms of the necessary input data, pre-processing (setup of the model), computational time, and post-processing compared to 2D. In fact you do not only need the wave data equally as well the bathymetry, wind and current data, tidal changes etc.. Each of them is needed not only for a single transect but for the whole area. We will add some explanations about this to the revised manuscript to highlight the economical benefit of 1D compared to 2D.

Comment		Author response
Line 86: a range cannot be defined by a single value (e.g., 5.5 s and 3.5 s).		The text was changed: "Average wave periods followed a similar pattern with longer periods corresponding to greater wave heights, with an average of 5.5 s for the eastern coast during the northeast monsoon, and an average 3.5 s at the western coast during the southwest monsoon (Marchesiello et al. 2017). "
Line 174 on: much more details should be provided when commenting on the Extreme Value Analysis. Why were those distributions selected? It was performed any GOF test? Why do Authors rely on Blocks Maxima approach instead of e.g., a Peak Over Threshold approach?		We are aware that there are different approaches for estimating return levels like using POT instead of block maxima as mentioned in your comment. For the revised version of our manuscript, we will carefully assess if it is meaningful to use a different approach than the one which is presently used for the different variables. At least we will more carefully justify our choice of distributions backed up by GOF tests and provide more references to previous studies.
Line 183: why is the water level only relevant for the 1D model?		The text was changed and includes now both models!
Line 207: I do not know about WAM, but I am sure WavewatchIII also allows for wave breaking and triad wave-wave interaction.		Thanks for your comment. Your totally right here! According to your hint, we remove the Wavewatch III citation from our manuscript. For WAM we doublechecked that it does not include breaking and triad wave-wave interaction in their propagation equation and therefore remain that one.
Line 222: while I do not argue the suitability of a stationary approach, I would not say that the computational domain is small (indeed it is order of kilometers).		According to your comment, we changed the text to the following, trying to avoid further misunderstandings of "small": "Additionally, the simulation is only calculated in a stationary mode. This is reasonable for applications where wave travel through computational domain within simulation period (*Delft WAVE user manual, p49*). Moreover, in this case bathymetry contour lines stay relatively parallel to each other and the coast, and stationarity assumptions of instantaneously reacting waves to the wind field fluctuation are acceptable (Rogers et al. 2007)."
Line 396: Based on the results, I do not understand why the 1D model would be particularly suited for propagating extreme waves.		You are right, in fact both models are suitable to propagate extreme waves in an appropriate way. However, the presented approach based on scare data availability in terms of measurements and therefore follows the idea of using extreme wave conditions derived from statistical analysis of ERA5 as input. Such a simplified approach would not be possible for Delft 3D or at least would take much more time in generating all necessary boundary conditions, as much more parameters at multiple locations are needed to set up the model. The text was adapted here to clarify this detail.