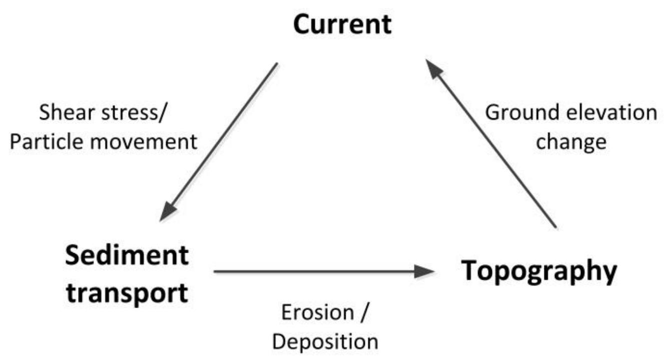
General comments:

This paper investigates the benefits of mangrove embankments in attenuating the amplitudes of ocean tides through a coupled numerical model that reproduces shallow-water current propagations under the effect of soil consolidation and sea level rise. This phenomenon/process is a typical water-sediment-topography interaction issue can be described as below:



Ocean waves/tides induced onshore/offshore current causes accordingly sediment transport due to the bottom shear stress, then the net balance of sediment flux result in erosion or deposition of movable layer and further cause topographical change. Finally, current is influenced by the renewed topography. Basically, it is a dynamic cycle and is significant in the nearshore area. Thus in my opinion, the method used to investigate this topic should be capable of reflecting the interaction processes aforementioned. However the developed model in this study seems only cover part of the cycle mentioned above, sediment transport due to the shear stress generated by current is not considered. Topographical change calculation only consider soil consolidation (Eq.3 ~ 8), lack of erosion/deposition caused by net sediment flux. The sediment accretion(deposition)/decrement(erosion) should be calculated according to the temporal of vegetation growth ratio not only an assumed average accretion rate 1 cm/year instead. Generally speaking, the topic discussed in this paper is essential and well fit with the scope of this journal. However, the completeness of the coupled model applied in this study, in my opinion is insufficient as well as lack of model verification based on field data (hydrodynamic, topography etc.). In additions, it is suggested to extend more discussion on the sand trapping efficiency and tidal wave energy dissipation due to the existence of mangrove embankments especially in different stages.

Specific comments:

1. P.3, I suggest to add a paragraph to introduce the study area. For example climate, shore geomorphology, wave, tidal components, historic disasters etc. That will be helpful for readers to understand the determination of computational conditions for the case study (P.7).
2. P.4, Ln26-27, "…the water depth used in Equations (1) and (2) is adjusted to the ground subsidence that is calculated by the following Terzaghi one-dimensional consolidation equation…", How to adjust need more descriptions.
3. P.4, please provide field verification examples or application references of this integrated model.
4. P.7, 2.5 Computational conditions for the case study:
   - What about the sea level rise scenario during simulation period?
   - Why boundary condition only consider diurnal tide? What about other tidal components?
   - Bottom roughness linearly increase with time to represent vegetation growing, however the sediment accretion was assumed a constant value 1 cm/year seemed not reasonable. Sediment accretion could be higher in the final stage when the land subsidence become worse.
5. P.9, Ln6, "Suspended sediment trapped by mangroves is highly dependent on the extent to which the plants are fully grown", this means the amount of trapped sediment should be calculated according to the shear stress generated by current.
6. P.9, Ln18-26, P.10, Ln1-2, P.10, Ln27-30, please provide more current simulation results like velocity, shear stress variation etc.
7. P.11, Ln4-9, "…that erosion of the embankment would decrease because hydraulic energy is dissipated by the vegetation. Therefore, these considerations relating to how the sediment accretion could be promoted may be critical to successful mangrove embankment designs…", it is suggested to further discuss the sediment trapping efficiency in different stages.
8. P.18, Figure 4, it is suggested to move "growth ratio --%" to a proper location since it will confuse with the title of vertical axis (water elevation).
9. P.19, Figure 5, What is the definition of "Attenuation ratio (%)"?