

Dear authors

The 3 reviewers have raised some valuable points, some of which were shared by multiple responses. Overall the work is being applauded for its relevance, rigour and presentation. In addition – and as expected – topics and references are being suggested to add to this overview. Since this paper is a chapter in an assessment report, the reviews are preferably treated as welcome extensions of the material on which the assessment is based.

In that respect, the following topics are considered to be valuable additions to the paper:

- **Classification of adaptation strategies** Some generic strategies to cope with sea level rise are (gradual) upgrading of defense infrastructure or coastal restoration (reviewer #2) and the identification of “setback zones” (elaborated extensively in the review by Daria Povh Skugor). Both have a strong rooting in present-day practices (even via legislation) or may become appropriate or critically limited in the future. Also there may be grey areas between some of the adaptation categories, such as “managed realignment for habitat creation” or the consideration of beach nourishment as an “advance strategy” (Reviewer #2). Reviewer #2 and Fraile Jurado also suggest to label early warning systems and forecasting tools as a separate class, and to elaborate in more depth on its developments and (increasing) value for instance for control of dynamic flood defense systems and evacuation. This may be combined with other information tools such as public information via cartography as suggested by Fraile Jurado. These additional categories may be added or integrated in existing categories, and elaborated in the main text
- **Distinction between current-day and future** Where possible, a distinction between what is happening today (practice) versus what might happen in the future (theory), for example for the approaches listed in Section 2.2.3 (Reviewer #2)
- **Discussion of trade-offs** Reviewer #2 makes various comments on side-effects, trade-offs and ancillary goals, such as the fact that sand for beach nourishment is scarce, the need to consider salinization of ground water even when it’s not a safety issue, etc. Where possible I recommend to elaborate on the suggestions raised, it will make the overview a bit more insightful.
- **Documentation of existing laws and plans** Daria Povh Skugor notes that a discussion of existing laws and plans is missing, and Fraile Jurado also notes that there is no reference to national coastal protection laws. Daria’s comment primarily implies a reference to the Barcelona convention that arranges the appointment of setback zones. I don’t know whether this reviewer is right that this is the only regional legal text in the world that makes such an arrangement, and I’m not sure it’s feasible to systematically survey the existence of such texts elsewhere. A cross-reference to Chapter 5 is appropriate (as the authors already replied to the reviewer), but a reference to this legal framework in Chapter 4 seems to be appropriate as it specifically refers to adaptation measures discussed here.
- **Conclusion section** Fraile Jurado suggests to include a specific conclusion section. However I would tend to keep the current structure where a summary per basin is given as a general conclusion. You could introduce this section in a way that the reader will consider it as a “regional policy oriented” summary and conclusion section.

Furthermore, the following specific comments of the reviewers could be addressed:

- A reference to the bibliographic database used for the review would be welcome, including any considerations used to categorize the literature into for instance the adaptation strategy classes. Also a statement is recommended on the fact that the literature included is not a reflection of the large body of literature that does exist, as indicated by Fraile Jurado.
- I agree with Reviewer #2 that a reference to mitigation needs to be either elaborated more prominently (for instance when it is framed as a limit to adaptation), or removed to avoid distraction from the focus on adaptation.
- A reference to Box 1 and a clear description of its goal would be welcome
- Inclusion of additional literature as suggested by the referees is highly recommended (for instance on the engineering solutions raised by Reviewer #2, the cost/benefit arguments to address limits of engineering solutions, a reference to AdriAdapt suggested by Daria Povh Skugor, etc)
- Quite a few suggestions for textual improvements or explaining specific statements can readily be followed-up