

Dear Reviewer,

Thanks for reviewing our manuscript. We all agree with you completely. We will revise our manuscript based on your helpful comments after interactive discussion.

1) The focal mechanisms dataset used for the inversion should be provided as a table in the supplementary material.

**Response 01: We will provide the focal mechanisms dataset used for inversion in the supplementary material in our revised manuscript.**

2) There are too many sections and figures in the manuscript. Some of the sections can be combined, as for instance sections 3, 5.1, 6.1 combined in a methodology section and sections 5, 6 and 7 in a broader results section. Some of the figures can be transferred to the supplementary material, or provided as insets in other figures (e.g., Fig.9 as inset of Fig.8).

**Response 02: We will combine some sections together, and some of the figures will be transferred to the supplementary material in our revised manuscript later.**

3) In the local scale of Fig.13, the authors display several faults in the vicinity of the MTY EGS that are not displayed in the regional maps (e.g., Fig.11). Discuss the reason and perhaps provide local scale figures as insets in the regional maps to reduce the number of figures.

**Response 03: Due to different graphic scale of Fig.13 and Fig. 11 (et al), several faults in the vicinity of the MTY EGS are not displayed in the regional maps. We will provide local scale figures as insets in the regional maps in our revised manuscript later.**

Some minor comments related to the text concern:

1) Page 1, Line 34: define the abbreviation "FSP".

2) Provide the definition of  $\mu$  in Eq.(1).

3) In Page 9, Line 32, the numbering of the referred equations is probably wrong.

4) Replace 2030 with 2040 in Fig.11b or replace with the correct figure.

5) Correct the first word in Page 16, Line 1.

**Response 04:** We will revise these minor errors in our revised manuscript later.