Supplement Section

Response to Referee 1: Assessing the tsunami mitigation effectiveness of a planned Banda Aceh Outer Ring Road (BORR), Indonesia

by Syamsidik et al.

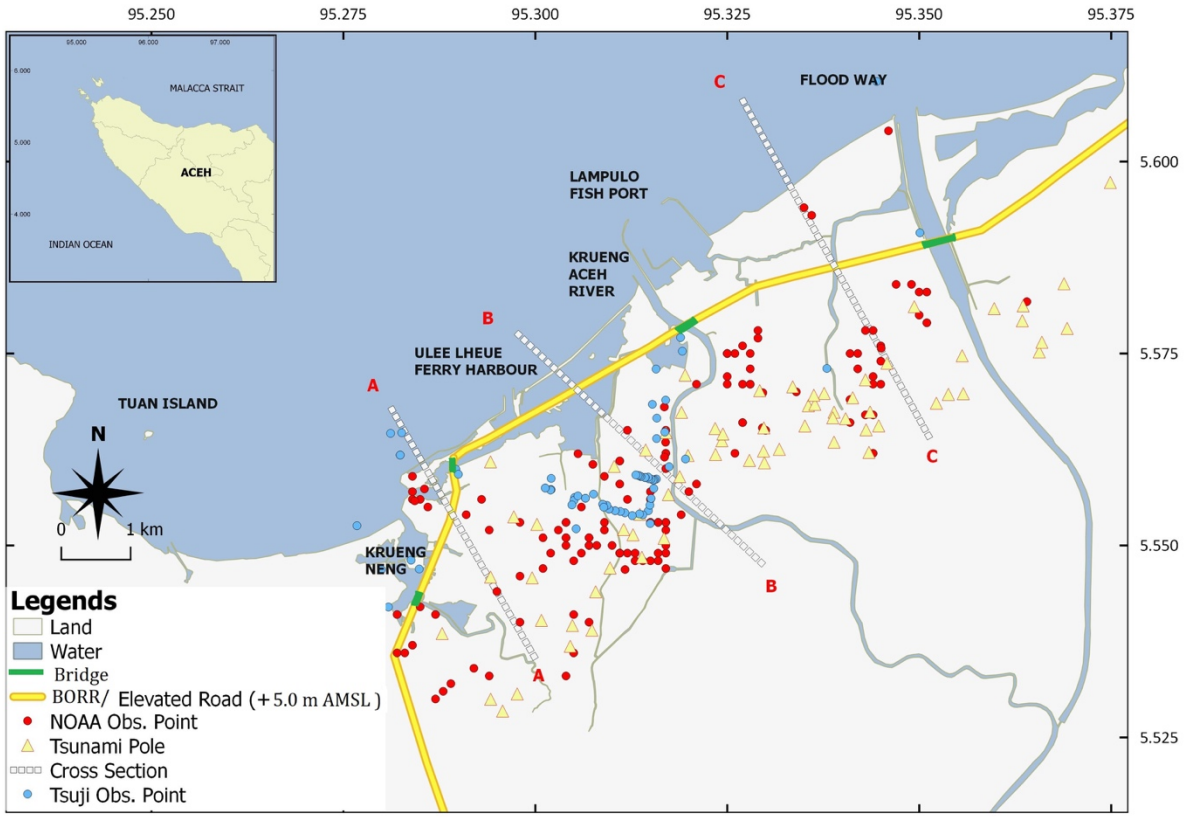

Fig. 1 The study area (revised).

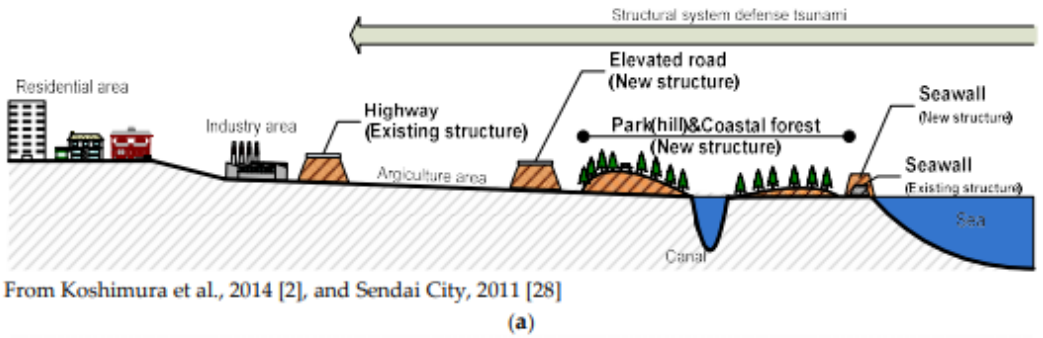

Figure 2. The Multi-layered tsunami defense as depicted by Koshimura et al. (2014)

The equations 4 and 6 that confirm the use of ϕ

$$\frac{\partial \eta}{\partial t}+\frac{1}{R\cos\phi}\left\{\frac{\partial P}{\partial \psi}+\frac{\partial}{\partial \phi}(\cos\phi Q)\right\}=-\frac{\partial h}{\partial t}, \qquad (4)$$

$$\frac{\partial Q}{\partial t}+\frac{1}{R\cos\phi}\frac{\partial}{\partial \psi}\left\{\frac{PQ}{H}\right\}+\frac{1}{R}\frac{\partial}{\partial \phi}\left\{\frac{Q^2}{H}\right\}+\frac{gH}{R}\frac{\partial \eta}{\partial \phi}+fP+F_y=0, \qquad (6)$$

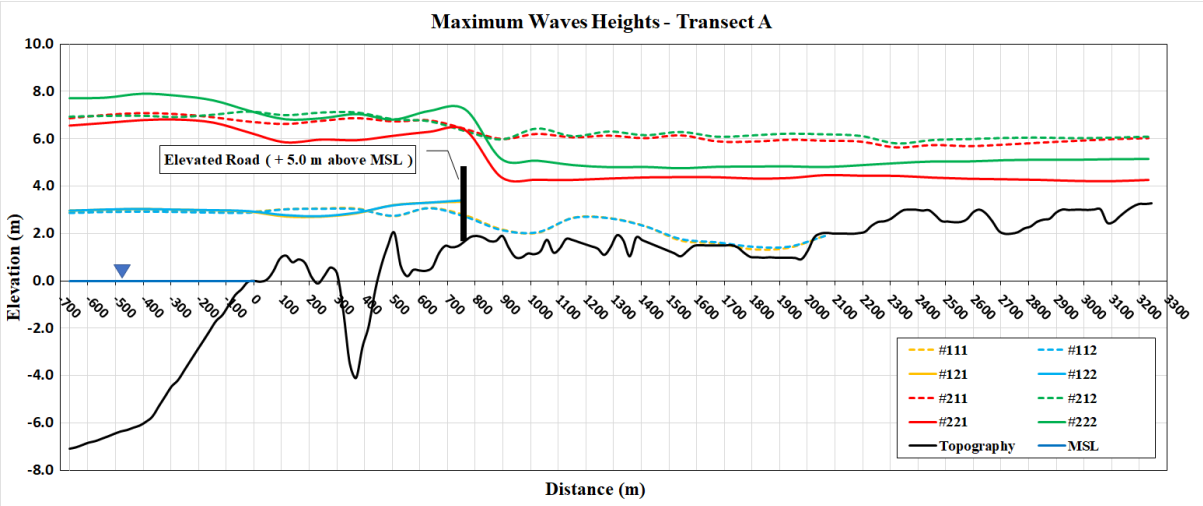

Fig. 3 an example of revised Fig. 12 in the manuscript to show more visible lines and legends. Similar revisions have been done to Transect B and Transec C.

Table 1. Information on the Setup of the six layers for COMCOT Simulations

Layer	Latitude	Longitude	Number of Grid	Ratio	Grid size (m)	Time Step (sec.)	Manning Roughness Coefficients	SWE type
1	0.1	88.1	1772		1856	0.1	none	Linear
	14.93	102.8						
2	3	91	1920	2	928	0.05	none	Linear
	10	100						
3	4.08	92.05	3899	3	309.33	0.017	none	Linear
	8.98	97.98						
4	5.2708	94.51	3137	3	103.11	0.006	none	Linear
	6.695	95.99						
5	5.5	95.14	1426	3	34.37	0.002	none	Linear
	5.69	95.39						
6	5.515	95.235	2362	3	11.5	0.001	Variable Manning Roughness Coefficients (see **Table 3**)	Nonlinear
	5.615	95.378						