Table S3. Additional forcings (i.e. stressors) used in model validation. Effect on ecological processes and functional groups in the model.

|  |  |
| --- | --- |
| **Forcing** | **Implementation** |
| Typhoons | Typhoons (i.e. wind speeds ≥ 118 km hr-1 (1)) decrease coral cover by 0.2 – 20% (2,3) and macroalgal cover by 45 – 90% (4). |
| Blast fishing | Decreases coral cover by 0.14% yr-1 and increases fishing extraction by 1% yr-1 at a blasting rate of 1 blast hr-1(5,6,7). Damage inflicted by blast fishing is assumed to increase linearly with blasting rate. Blasting rate is specified for each scenario. |
| Poison fishing | Decreases coral cover by 0.01% yr-1 poison-fisher-1 (5). Damage inflicted by poison fishing is assumed to increase linearly with the number of poison fishers. Number of poison fishers is specified for each scenario. |

References: (1) Guard and Lander [1], (2) Cheal et al. [2], (3) Gardner et al. [3], (4) Mumby et al. [4], (5) McManus et al. [5], (6) McManus et al. [6], (7) Calud et al. [7].

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