

Table S2. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario Ivan_050: Ivan-type storm with present-day sea levels.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | | | | 0.060 | | | | | |
| Bridges | | 0.164 | 12 | | | | | | |
| Buildings | 0.020 | | 195 | 0.005 | | 70 | 0.001 | | 10 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 2.799 | | | 1.221 | | | 0.041 | | |
| Ports | | | 1 | | | 1 | | | |
| Religious centres | | | 1 | | | | | | |
| Roads | | 9.870 | | | 4.181 | | | 0.106 | |
| Seaports | 0.018 | | | 0.007 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 6.774 | | | 0.972 | | | 0.035 | |

Table S3. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario Ivan_107: Ivan-type storm with 0.5 m sea level rise.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | | | | 0.060 | | | | | |
| Bridges | | 0.261 | 14 | | | | | | |
| Buildings | 0.032 | | 361 | 0.009 | | 125 | 0.001 | | 25 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 3.251 | | | 1.586 | | | 0.049 | | |
| Ports | | | 1 | | | 1 | | | |
| Religious centres | | | 1 | | | 1 | | | |
| Roads | | 13.047 | | | 6.865 | | | 0.193 | |
| Seaports | 0.021 | | | 0.007 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 7.419 | | | 0.993 | | | 0.062 | |

Table S4. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario Ivan_167: Ivan-type storm with 1.17 m sea level rise.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | 0.001 | | | 0.066 | | | | | |
| Bridges | | 0.350 | 24 | | 0.006 | 1 | | | |
| Buildings | 0.049 | | 525 | 0.017 | | 227 | 0.002 | | 34 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 3.780 | | | 1.815 | | | 0.057 | | |
| Medical facilities | | | 1 | | | | | | |
| Police facilities | | | 1 | | | | | | |
| Ports | | | 1 | | | 1 | | | |
| Religious centres | | | 1 | | | 1 | | | |
| Roads | | 16.899 | | | 8.503 | | | 0.229 | |
| Seaports | 0.026 | | | 0.008 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 8.737 | | | 1.095 | | | 0.089 | |

Table S5. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario Lenny_050: Lenny-type storm with present-day sea levels.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | | | | 0.007 | | | | | |
| Bridges | | 0.128 | 11 | | | | | | |
| Buildings | 0.014 | | 130 | 0.002 | | 41 | | | 8 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 2.295 | | | 0.856 | | | 0.039 | | |
| Ports | | | | | | 1 | | | |
| Religious centres | | | 1 | | | | | | |
| Roads | | 7.398 | | | 2.334 | | | 0.092 | |
| Seaports | 0.016 | | | 0.005 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 5.481 | | | 0.908 | | | 0.035 | |

Table S6. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario Lenny_107: Lenny-type storm with 0.5 m sea level rise.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | | | | 0.024 | | | | | |
| Bridges | | 0.216 | 14 | | | | | | |
| Buildings | 0.021 | | 230 | 0.005 | | 86 | 0.001 | | 22 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 2.635 | | | 1.065 | | | 0.046 | | |
| Ports | | | | | | 1 | | | |
| Religious centres | | | 1 | | | | | | |
| Roads | | 9.371 | | | 3.511 | | | 0.158 | |
| Seaports | 0.020 | | | 0.007 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 6.208 | | | 0.963 | | | 0.062 | |

Table S7. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario Lenny_167: Lenny-type storm with 1.17 m sea level rise.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | 0.001 | | | 0.028 | | | | | |
| Bridges | | 0.199 | 17 | | | | | | |
| Buildings | 0.036 | | 412 | 0.013 | | 179 | 0.002 | | 32 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 3.104 | | | 1.375 | | | 0.054 | | |
| Medical facilities | | | 1 | | | | | | |
| Ports | | | 1 | | | | | | |
| Religious centres | | | 1 | | | 1 | | | |
| Roads | | | 1 | | | 1 | | | |
| Seaports | | 12.602 | | | 6.066 | | | 0.214 | |
| Transport terminal - boat | 0.023 | | | 0.008 | | | | | |
| Watercourse | | | 2 | | | 1 | | | |

Table S8. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario 100yr_050: 100yr-type storm with present-day sea levels.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | | | | 0.057 | | | | | |
| Bridges | | 0.153 | 12 | | | | | | |
| Buildings | 0.018 | | 174 | 0.004 | | 66 | 0.001 | | 10 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 2.799 | | | 1.221 | | | 0.041 | | |
| Ports | | | | | | 1 | | | |
| Religious centres | | | 1 | | | | | | |
| Roads | | 9.333 | | | 3.882 | | | 0.106 | |
| Seaports | | | | | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 7.030 | | | 0.972 | | | 0.043 | |

Table S9. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario 100yr_107: 100yr-type storm with 0.5 m sea level rise.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | | | | 0.061 | | | | | |
| Bridges | | 0.246 | 16 | | | | | | |
| Buildings | 0.030 | | 346 | 0.008 | | 112 | 0.001 | | 25 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 3.263 | | | 1.586 | | | 0.049 | | |
| Ports | | | 1 | | | 1 | | | |
| Religious centres | | | 1 | | | | | | |
| Roads | | 12.894 | | | 6.532 | | | 0.193 | |
| Seaports | 0.022 | | | 0.008 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 7.782 | | | 0.993 | | | 0.062 | |

Table S10. Summary of modelled inundation impacts on coastal features in Grenada, Carriacou and Petite Martinique for Scenario 100yr_167: 100yr-type storm with 1.17 m sea level rise.

| | Grenada | | | Carriacou | | | Petite Martinique | | |
|---------------------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|----------------------------------|----------------------|-----------------|
| Feature | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected | Area affected (km ²) | Length affected (km) | Number affected |
| Airports | 0.001 | | | 0.067 | | | | | |
| Bridges | | 0.211 | 14 | | 0.162 | 10 | | | |
| Buildings | 0.049 | | 532 | 0.016 | | 226 | 0.002 | | 32 |
| Emergency shelters | | | 1 | | | | | | |
| Land area | 3.814 | | | 1.829 | | | 0.056 | | |
| Medical facilities | | | 1 | | | | | | |
| Ports | | | 1 | | | 1 | | | |
| Religious centres | | | 1 | | | 1 | | | |
| Roads | | 16.808 | | | 8.366 | | | 0.219 | |
| Seaports | 0.026 | | | 0.008 | | | | | |
| Transport terminal - boat | | | 2 | | | 1 | | | |
| Watercourse | | 9.017 | | | 1.102 | | | 0.087 | |

Table S11. Summary of modelled inundation impacts on broad land use/land cover types in coastal areas, for an Ivan-type storm under different sea level scenarios. Values represent total combined areas for Grenada and Carriacou; land cover data for Petite Martinique were unavailable.

| Scenario | Ivan_050 | Ivan_107 | Ivan_167 |
|-----------------------------|----------------------------------|----------|----------|
| Land use/land cover type | Area affected (km ²) | | |
| Agriculture | 0.772 | 1.042 | 1.253 |
| Airport Land/Infrastructure | 0.027 | 0.027 | 0.028 |
| Aviation (i.e. runways) | 0.006 | 0.006 | 0.008 |
| Commercial & Industrial | 0.026 | 0.041 | 0.062 |
| Conservation Areas | 0.588 | 0.763 | 0.864 |
| Landfill & Degraded Land | 0.004 | 0.005 | 0.007 |
| Forest | 1.125 | 1.262 | 1.472 |
| Hydrological Features | 0.413 | 0.461 | 0.542 |
| Islands (coastal) | 0.059 | 0.066 | 0.074 |
| Livestock/Grazing Land | 0.048 | 0.070 | 0.043 |
| Marine Infrastructure | 0.001 | 0.002 | 0.003 |
| Mining | 0.000 | 0.000 | 0.000 |
| Recreational | 0.043 | 0.056 | 0.063 |
| Residential | 0.334 | 0.403 | 0.476 |
| Urban | 0.018 | 0.027 | 0.033 |

Table S12. Summary of modelled inundation impacts on broad land use/land cover types in coastal areas, for a Lenny-type storm under different sea level scenarios. Values represent total combined areas for Grenada and Carriacou; land cover data for Petite Martinique were unavailable.

| Scenario | Lenny_050 | Lenny_107 | Lenny_167 |
|-----------------------------|----------------------------------|-----------|-----------|
| Land use/land cover type | Area affected (km ²) | | |
| Agriculture | 0.512 | 0.696 | 0.935 |
| Airport Land/Infrastructure | 0.002 | 0.012 | 0.013 |
| Aviation (i.e. runways) | 0.000 | 0.001 | 0.002 |
| Commercial & Industrial | 0.017 | 0.029 | 0.050 |
| Conservation Areas | 0.373 | 0.462 | 0.591 |
| Landfill & Degraded Land | 0.003 | 0.004 | 0.005 |
| Forest | 0.941 | 1.062 | 1.251 |
| Hydrological Features | 0.341 | 0.380 | 0.442 |
| Islands (coastal) | 0.055 | 0.060 | 0.067 |
| Livestock/Grazing Land | 0.018 | 0.024 | 0.031 |
| Marine Infrastructure | 0.001 | 0.001 | 0.003 |
| Mining | 0.000 | 0.000 | 0.000 |
| Recreational | 0.044 | 0.051 | 0.061 |
| Residential | 0.295 | 0.321 | 0.370 |
| Urban | 0.017 | 0.025 | 0.030 |

Table S13. Summary of modelled inundation impacts on broad land use/land cover types in coastal areas, for a 100yr-type storm under different sea level scenarios. Values represent total combined areas for Grenada and Carriacou; land cover data for Petite Martinique were unavailable.

| Scenario | 100yr_050 | 100yr_107 | 100yr_167 |
|-----------------------------|----------------------------------|-----------|-----------|
| Land use/land cover type | Area affected (km ²) | | |
| Agriculture | 0.719 | 1.027 | 1.271 |
| Airport Land/Infrastructure | 0.025 | 0.027 | 0.029 |
| Aviation (i.e. runways) | 0.006 | 0.006 | 0.008 |
| Commercial & Industrial | 0.024 | 0.039 | 0.061 |
| Conservation Areas | 0.373 | 0.774 | 0.880 |
| Landfill & Degraded Land | 0.004 | 0.005 | 0.007 |
| Forest | 1.138 | 1.282 | 1.488 |
| Hydrological Features | 0.424 | 0.467 | 0.554 |
| Islands (coastal) | 0.058 | 0.064 | 0.071 |
| Livestock/Grazing Land | 0.031 | 0.071 | 0.044 |
| Marine Infrastructure | 0.001 | 0.002 | 0.003 |
| Mining | 0.000 | 0.000 | 0.000 |
| Recreational | 0.044 | 0.054 | 0.063 |
| Residential | 0.320 | 0.390 | 0.466 |
| Urban | 0.019 | 0.028 | 0.034 |