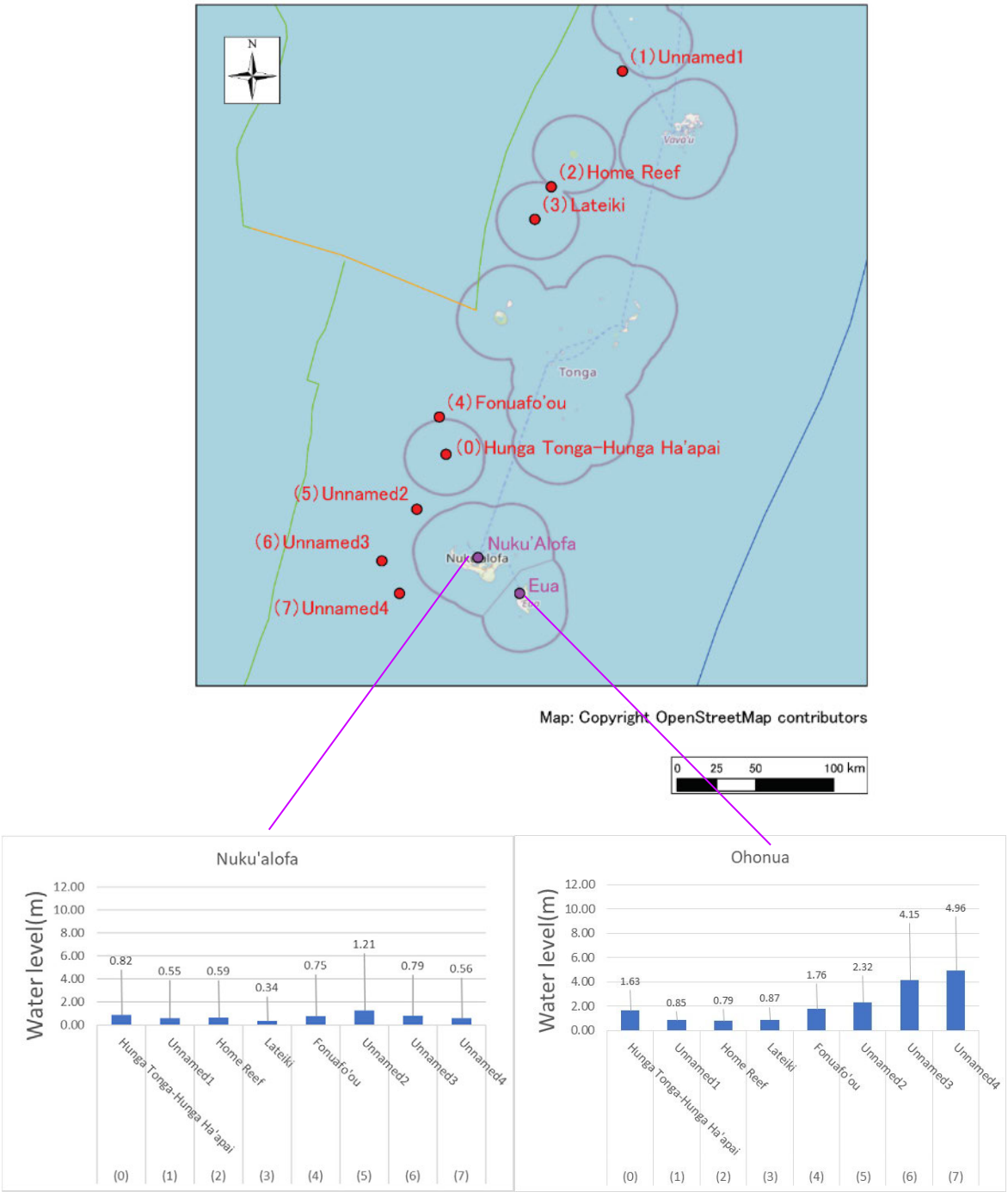
7) Comparison of tsunami water levels

Figure 2.6.171 shows the results of the comparison of the Max tsunami water levels at representative locations on Tongatapu and Eua Island by each of the target volcanoes. On Tongatapu Island, the tsunami water level is the highest when the wave source is located at the Unnamed2 volcano, and on Eua Island, the tsunami water level is the highest when the wave source is located at the Unnamed3 and Unnamed4 volcanoes. In the case of volcanoes, the location and distance to the volcanoes is an important factor.



Source: JICA Study Team

Figure 2.6.171 Comparative results of Max Tsunami Levels at Representative Sites(H=30m)

2.6.2 Analysis for seawalls

(1) Layout of the existing seawall

On Tongatapu Island, along the road north of the capital Nukualofa, a seawall, mainly made of masonry and partly reinforced with concrete, has been constructed to protect against storm surges and tsunamis entering beyond the offshore coral reef.

The total length is approximately 8.2 km and is divided into three sections as shown below (Figure 2.6.172).

① The masonry seawall section, constructed in two phases in 1988-89 with Japanese grant aid, covers 2.7 km to the west and 2.5 km to the east, excluding the urban area in the centre.

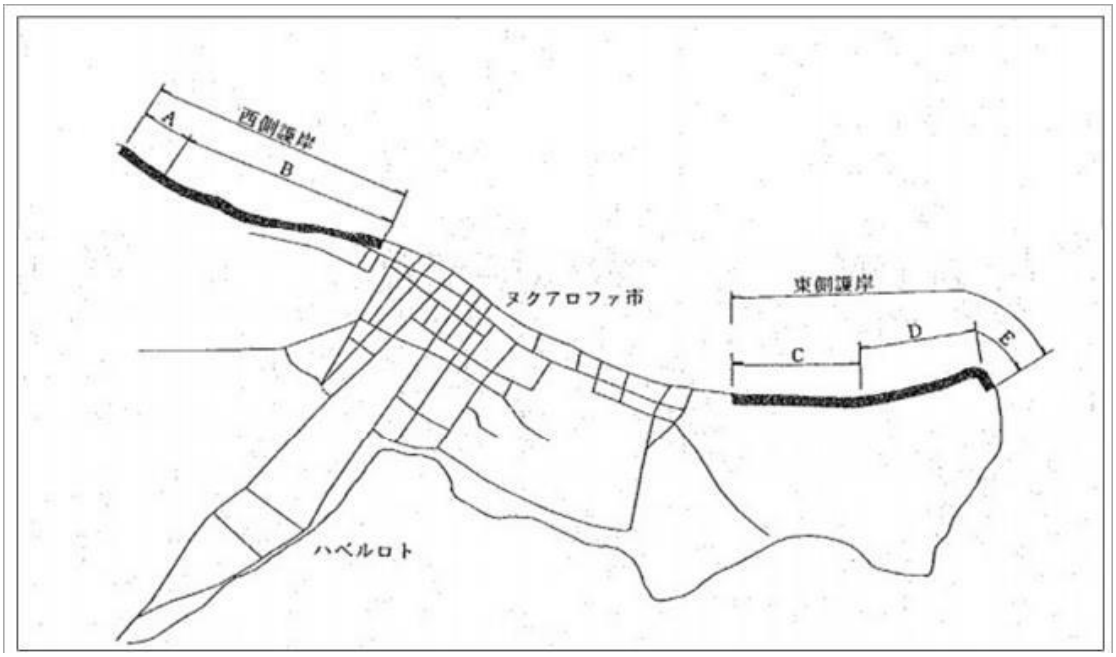
② The construction date is unknown, but the German grant aid seawall existed before the Japanese grant aid project was implemented, and although it is not known if it was designed from the beginning, it is currently constructed with a concrete lining over masonry. The length is 1 km from east to west across Beech Wharf in the city centre, with a total length of approximately 2 km.

③ Apart from the two seawalls mentioned above, there is an area of approximately 1 km located to the rear of the existing port facilities, where no seawalls need to be installed along the road.

Source: JICA Study Team

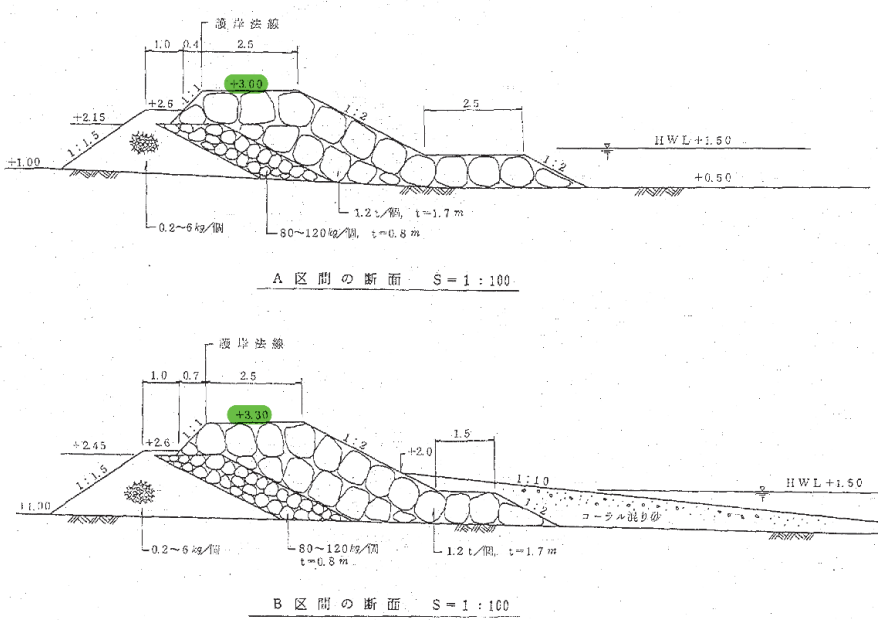
Figure 2.6.172 Location Map of Seawall

The following table shows the execution categories and standard cross-sections of the seawall by the Japanese grant aid. As the construction area is divided into five sections according to the different heights of the design top edge of the seawall, standard cross-sectional drawings for A to E are attached. The height standard is considered to be D.L.



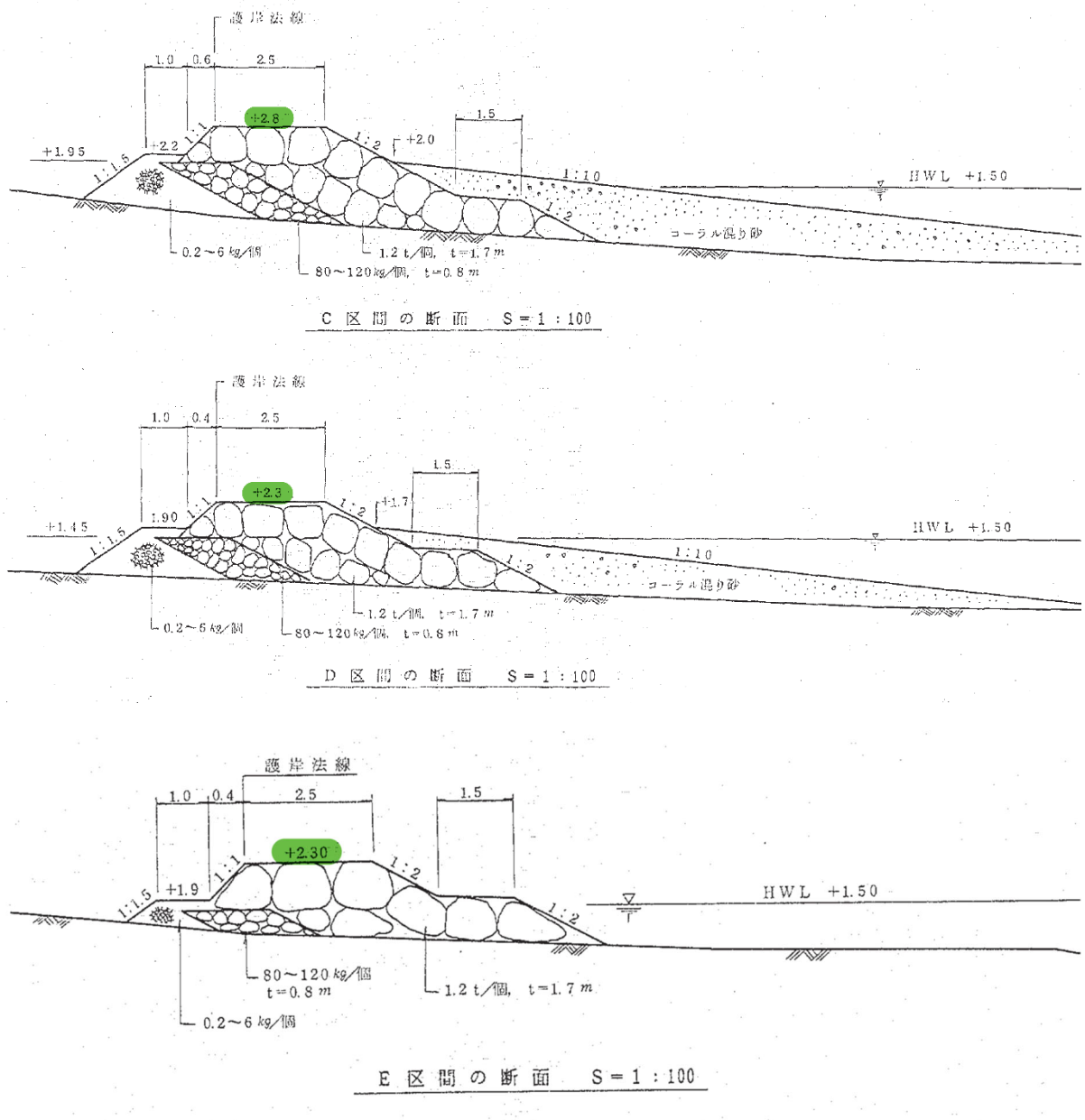
Source: Basic Design Study Report for the Nuku'alofa Seawall Expansion Project, Kingdom of Tonga (February 1988).

Figure 2.6.173 Location Map of the Design Classification of the Japanese Aid Seawall



Source: Basic Design Study Report for the Nuku'alofa Seawall Expansion Project, Kingdom of Tonga (February 1988).

Figure 2.6.174 Standard Cross-Sections of Japanese Aid Seawall (Sections A and B).

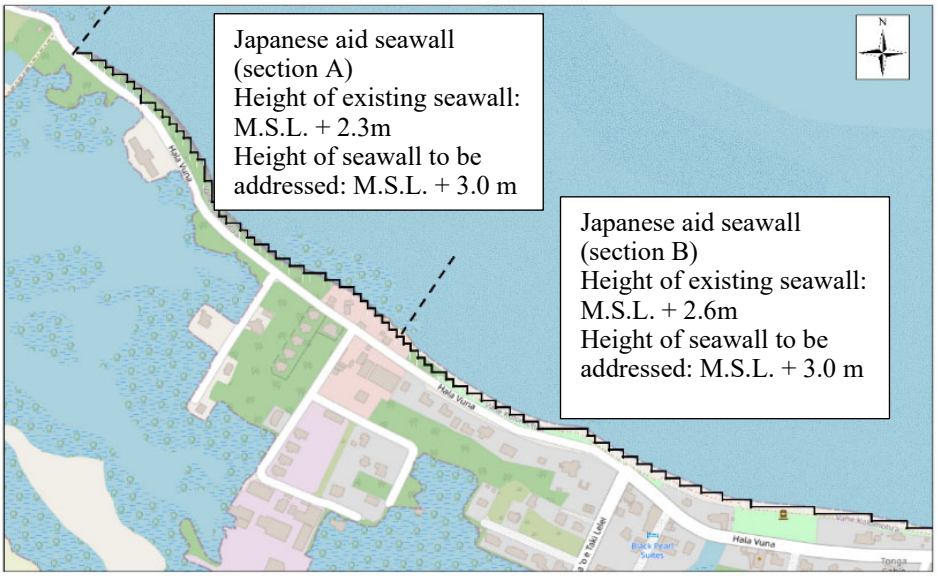


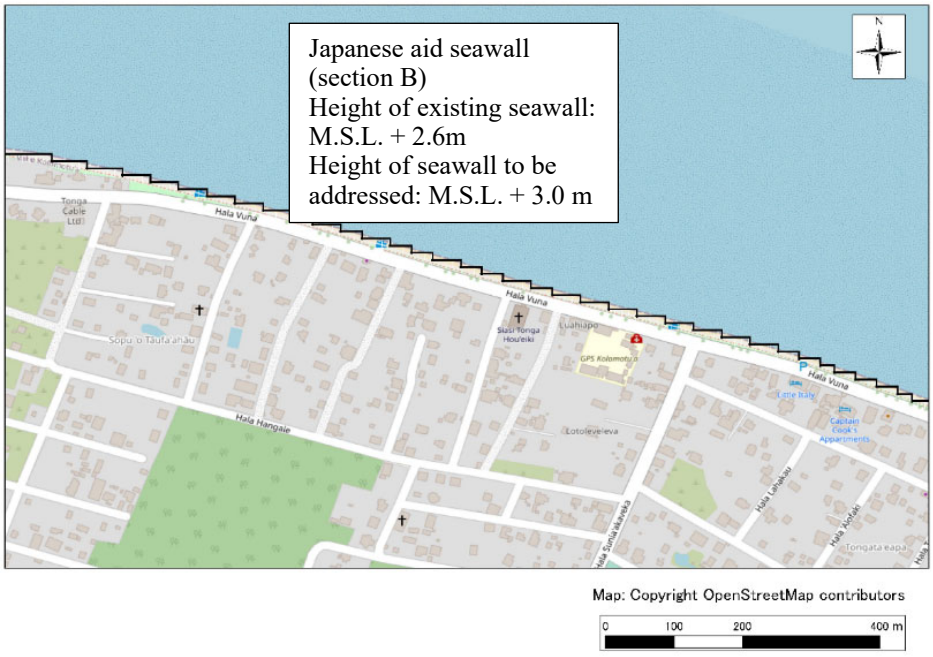
Source: Basic Design Study Report for the Nuku'alofa Seawall Expansion Project, Kingdom of Tonga (February 1988).

Figure 2.6.175 Standard cross-sections of Japanese Aid Seawall (Sections C, D and E).

(2) Establishment of seawall layout

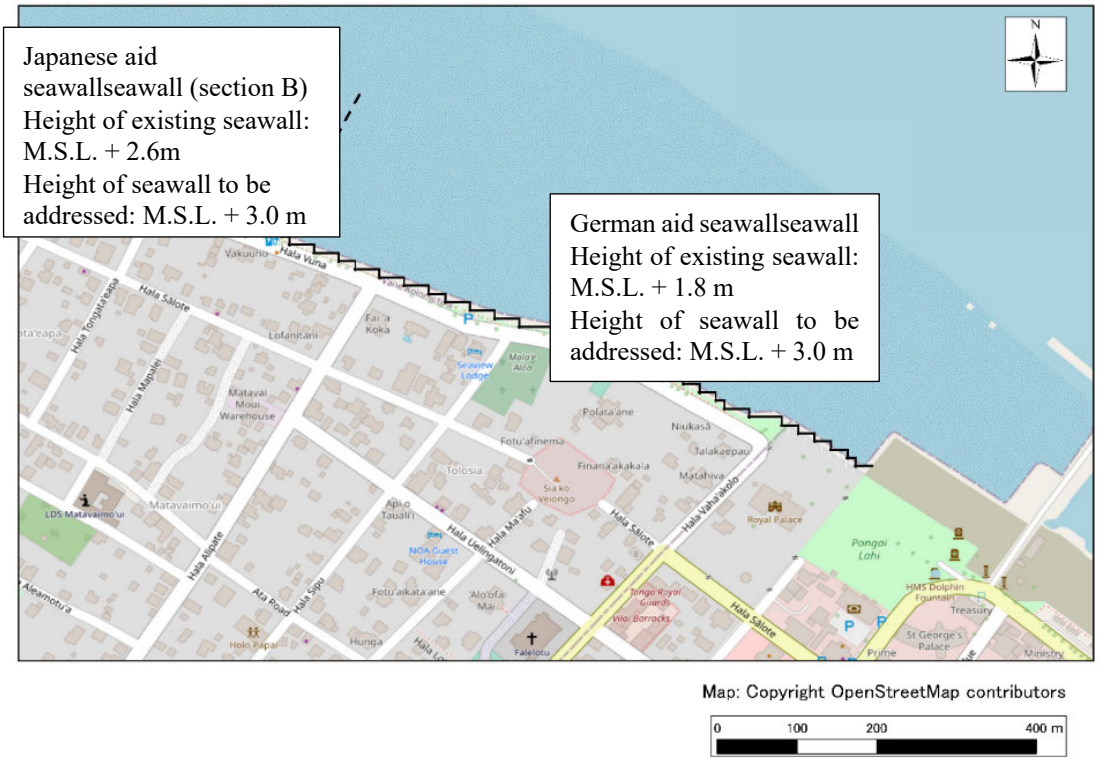
The seawall layout and height were set up for the tsunami analysis of a seawall for a level 1 scale volcanic tsunami. Figure 2.6.176 to Figure 2.6.178 show the seawall normal and top height. The layout was set in the same position as the existing seawall. The embankment height was set at 3.0 m, which is approximately 1 m higher than the current embankment height. For volcanic tsunamis, a height of 4.0 m was also considered, as no significant inundation prevention effect could be confirmed even with a 1 m increase in height.

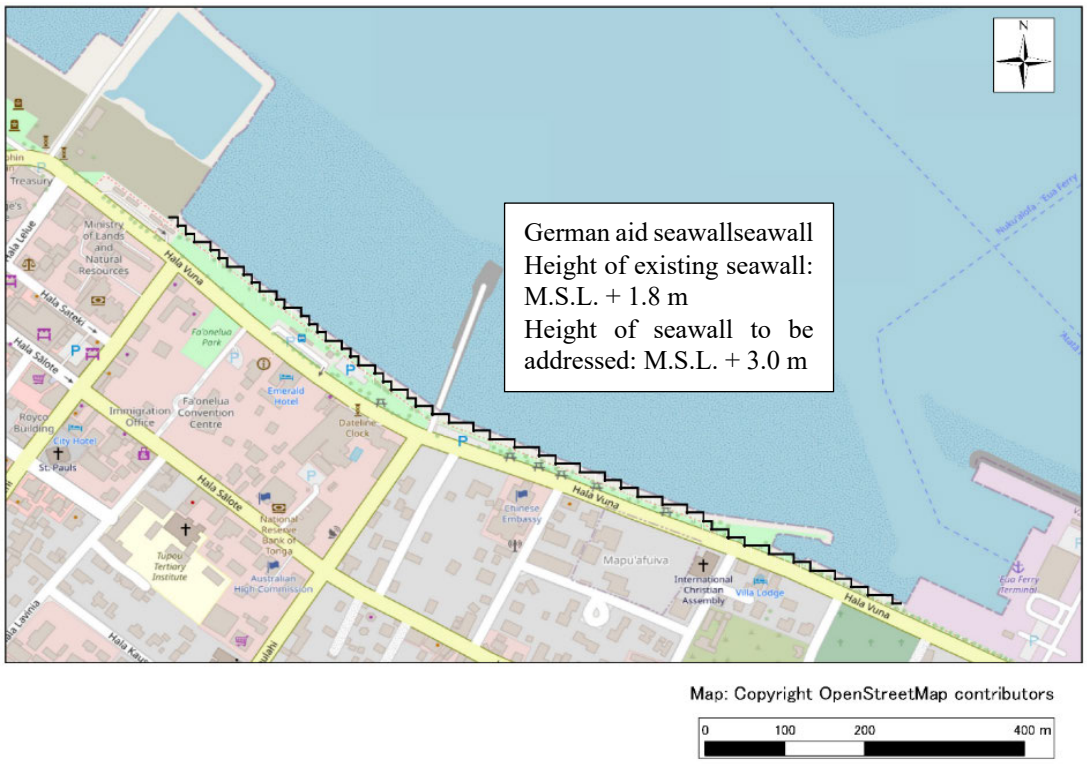




Source: JICA Study Team

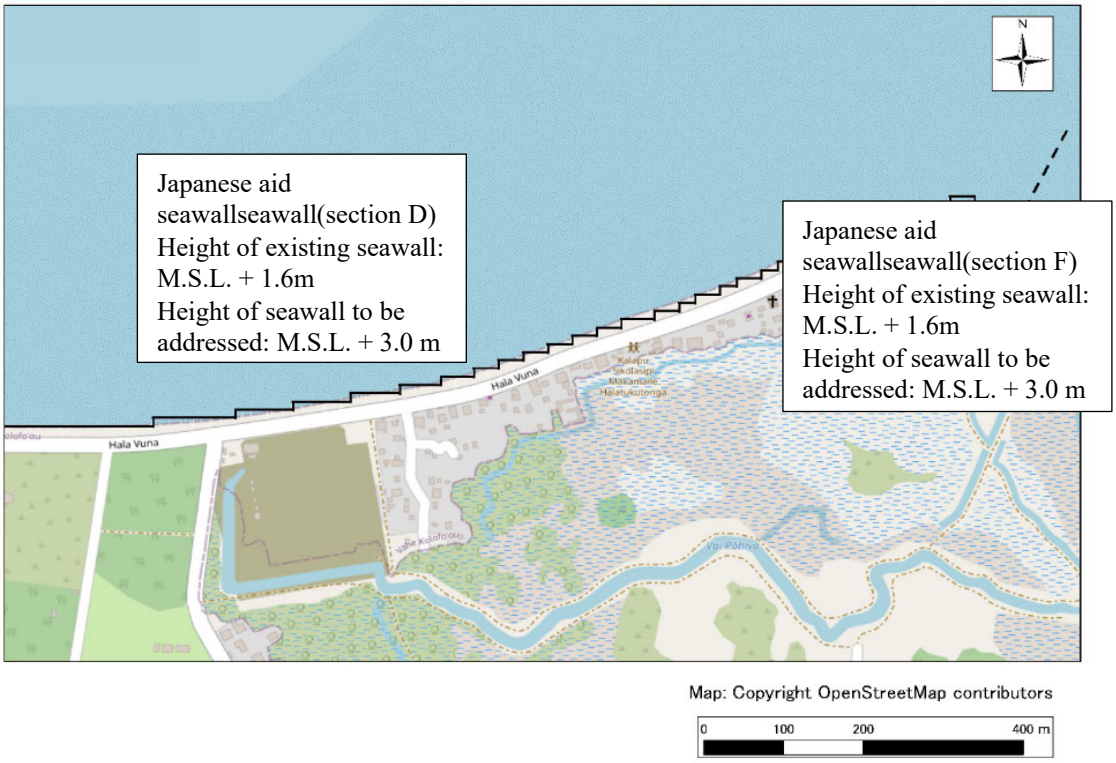
Figure 2.6.176 Seawall Layout (1)





Source: JICA Study Team

Figure 2.6.177 Seawall Layout (2)



Source: JICA Study Team

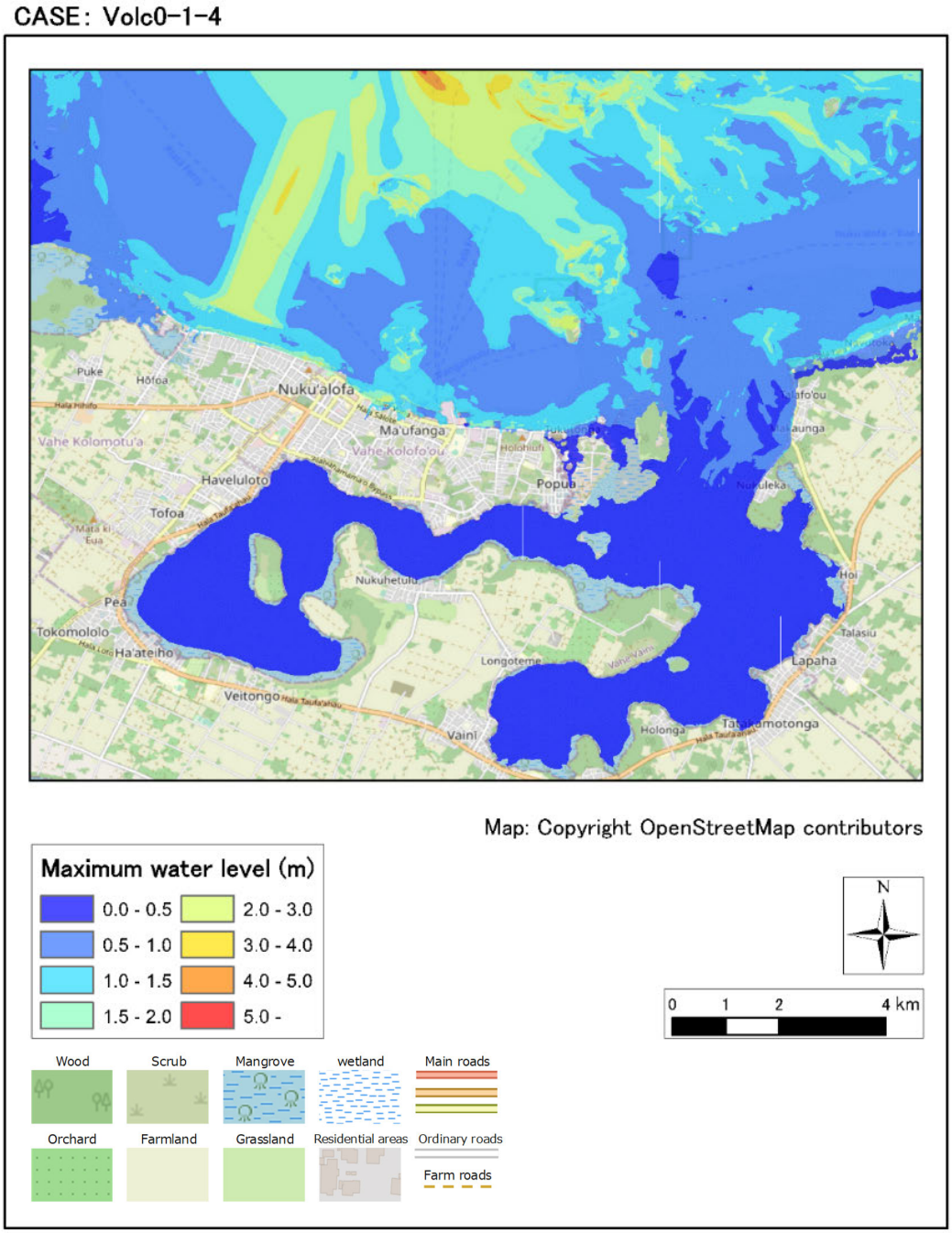
Figure 2.6.178 Seawall Layout (3)

(3) Calculation results with seawall

Tsunami analysis is carried out for volcanic tsunamis when seawalls are deployed. The Max tsunami Water Level Distribution for the case where seawalls are deployed is shown on the following page.

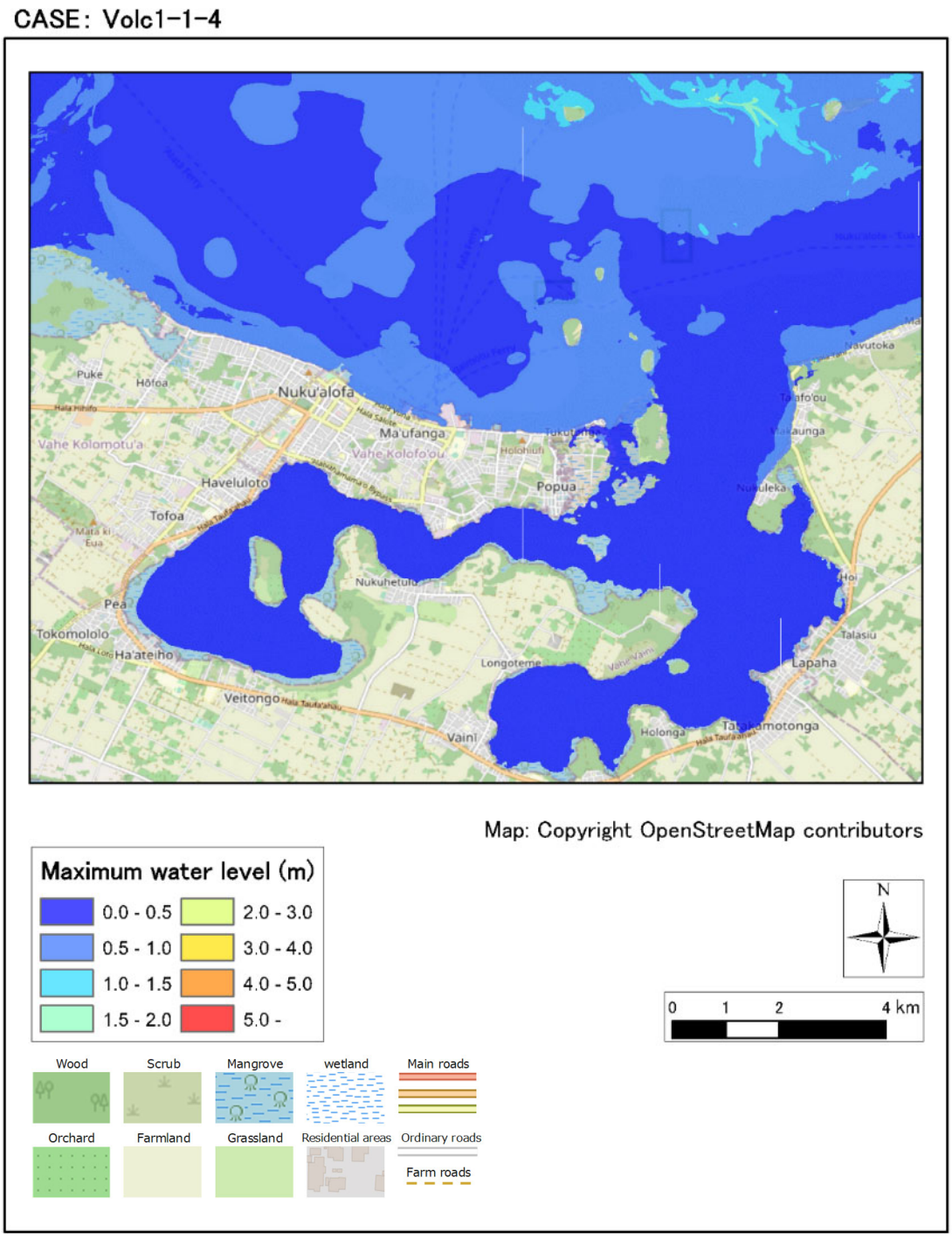
1) Height of seawall to be addressed (M.S.L. + 3.0 m)

a. Max Water Level Distribution



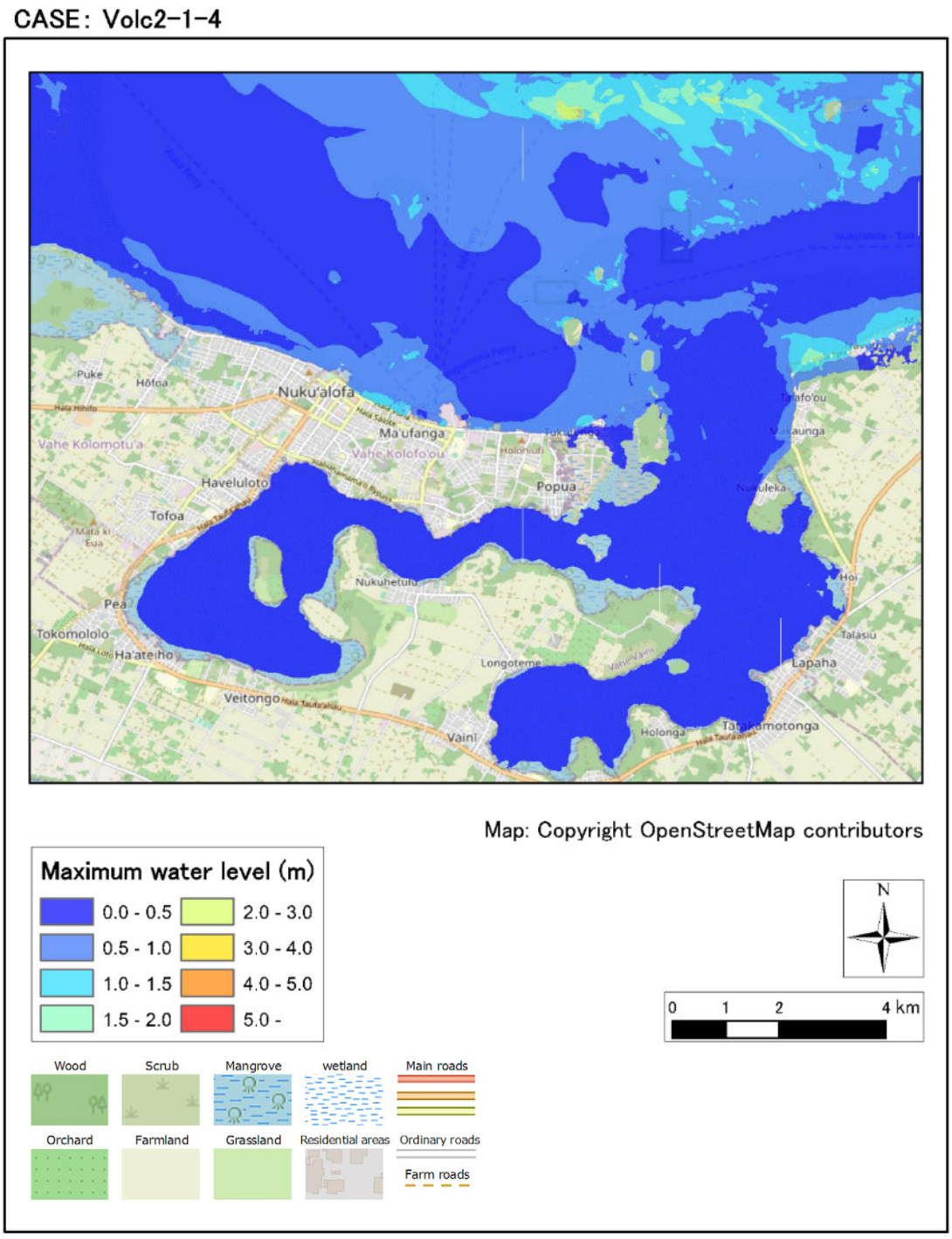
Source: JICA Study Team

Figure 2.6.179 Max Water Level Distribution (Hunga Tonga-Hunga Ha'pai, H=30m Raised Seawall M.S.L.+3.0m)



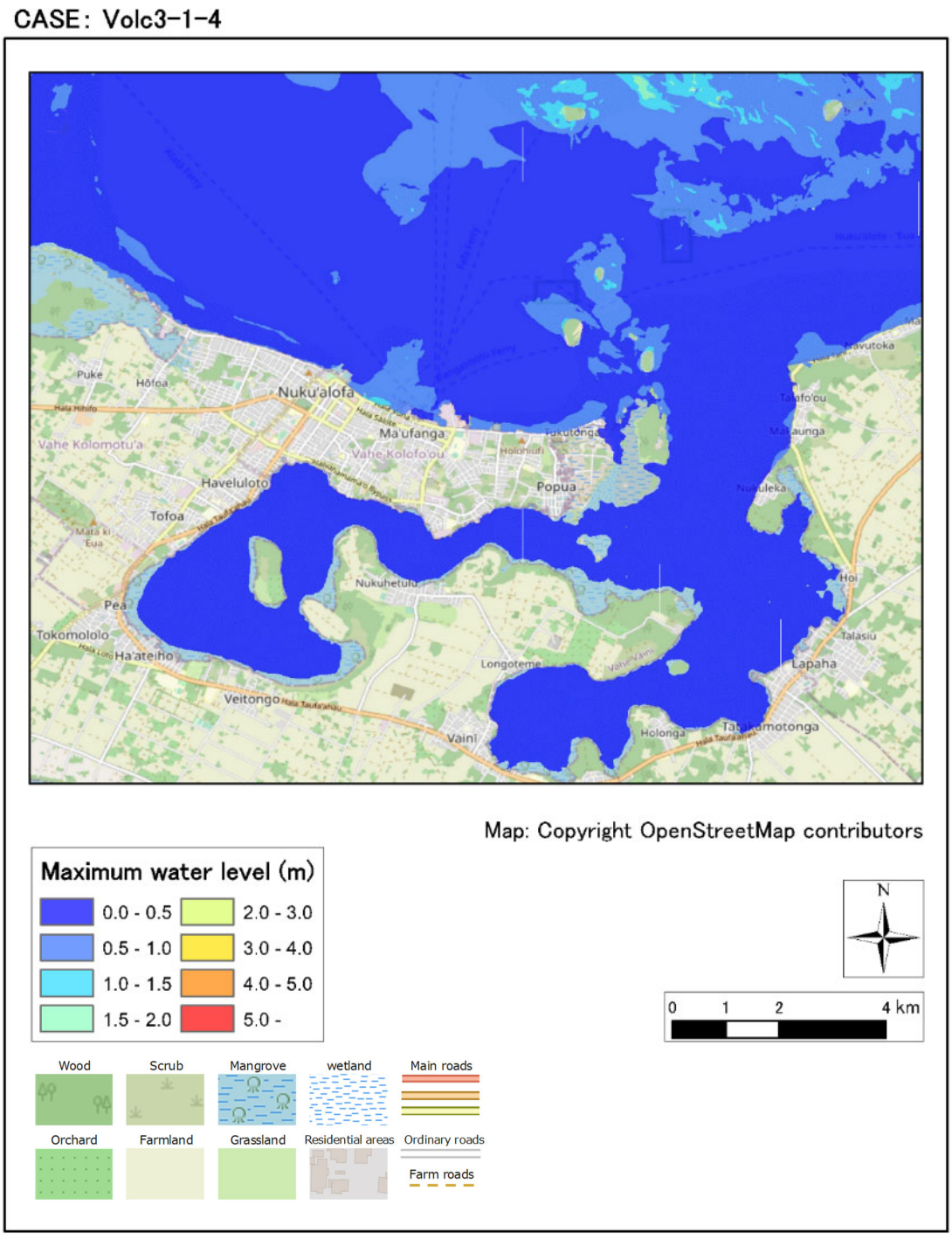
Source: JICA Study Team

Figure 2.6.180 Max Water Level Distribution (Unnamed1, H=30m Raised Seawall M.S.L.+3.0m)



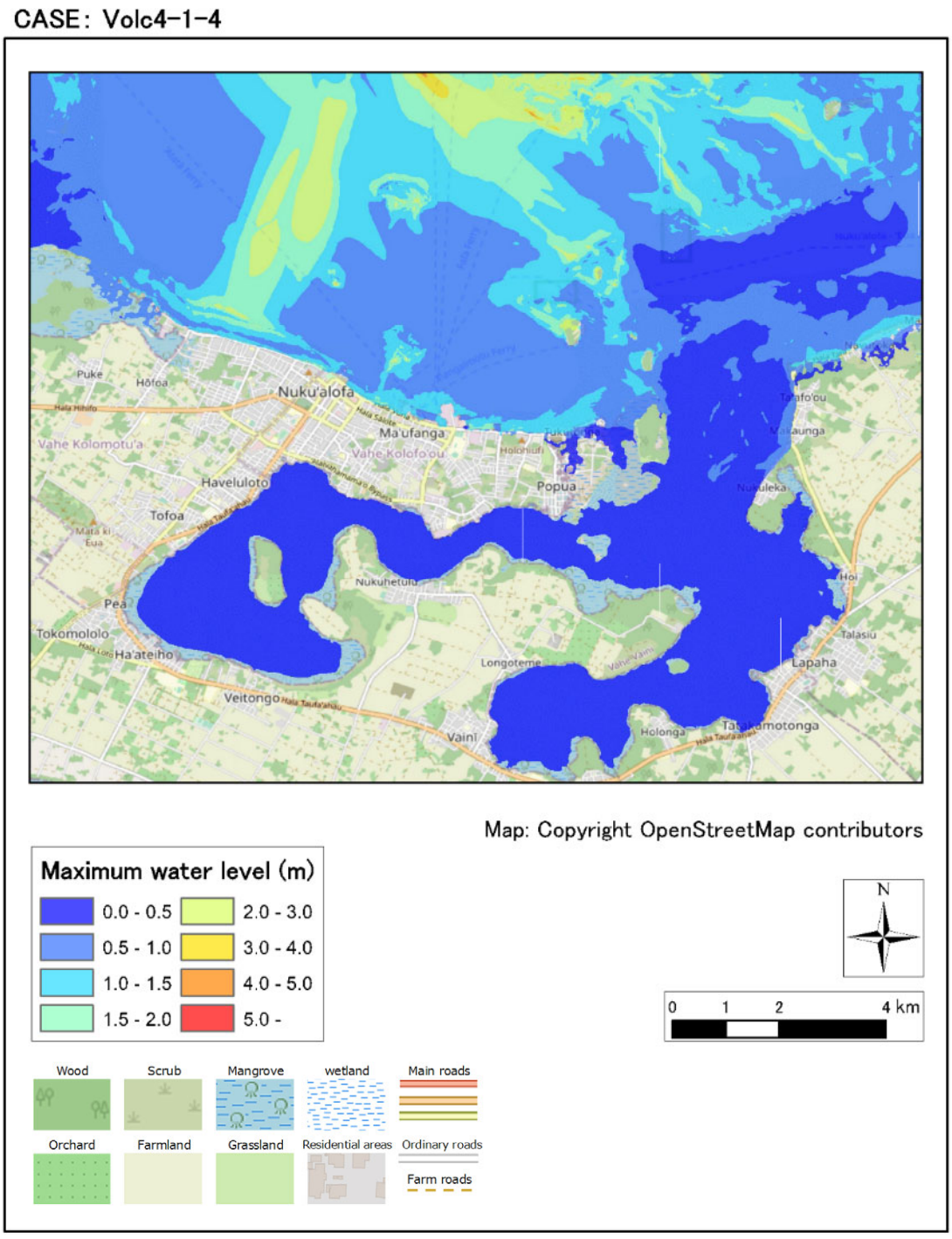
Source: JICA Study Team

Figure 2.6.181 Max Water Level Distribution (HomeReef, H=30m Raised Seawall M.S.L.+3.0m)



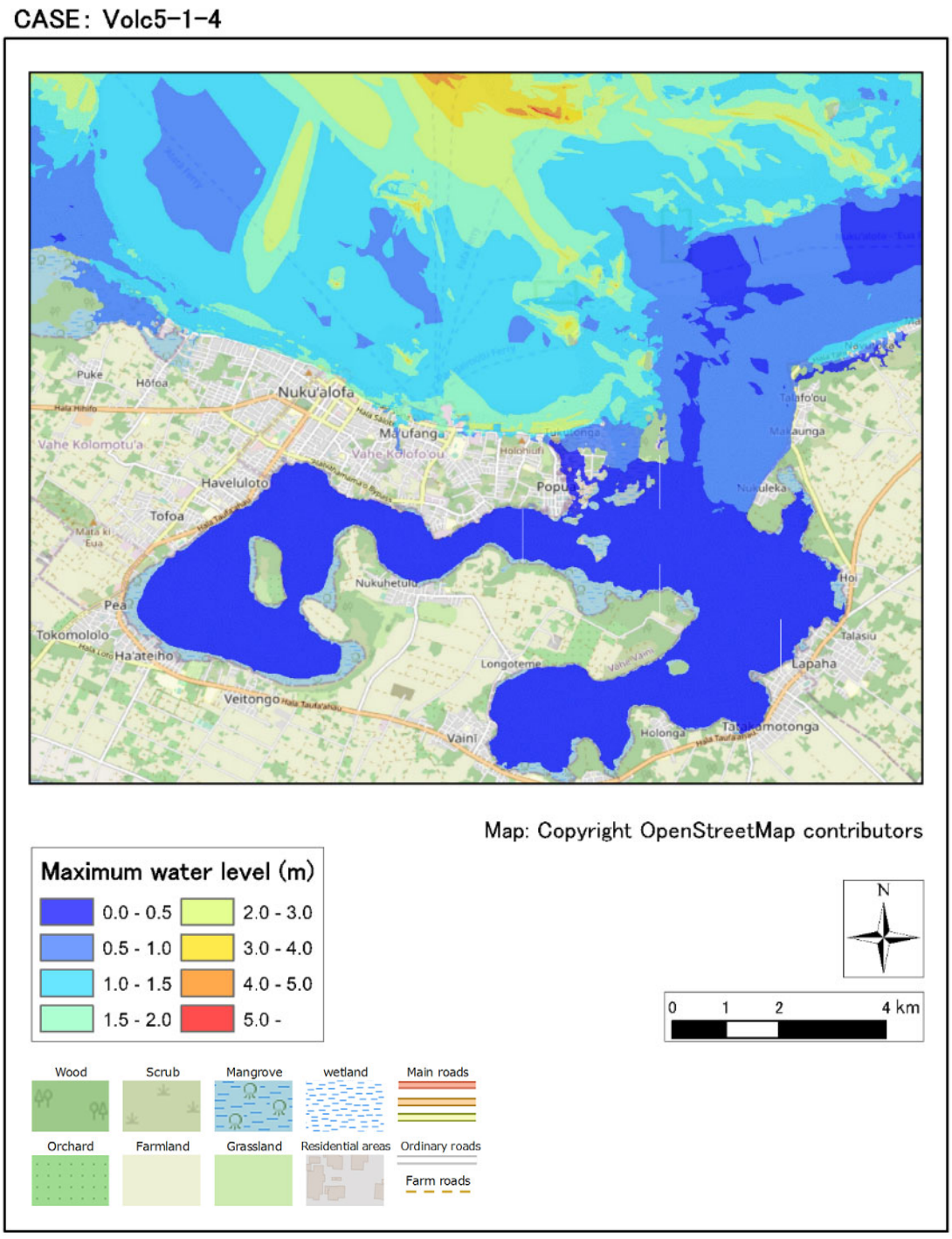
Source: JICA Study Team

Figure 2.6.182 Max Water Level Distribution (Lateiki, H=30m Raised Seawall M.S.L.+3.0m)



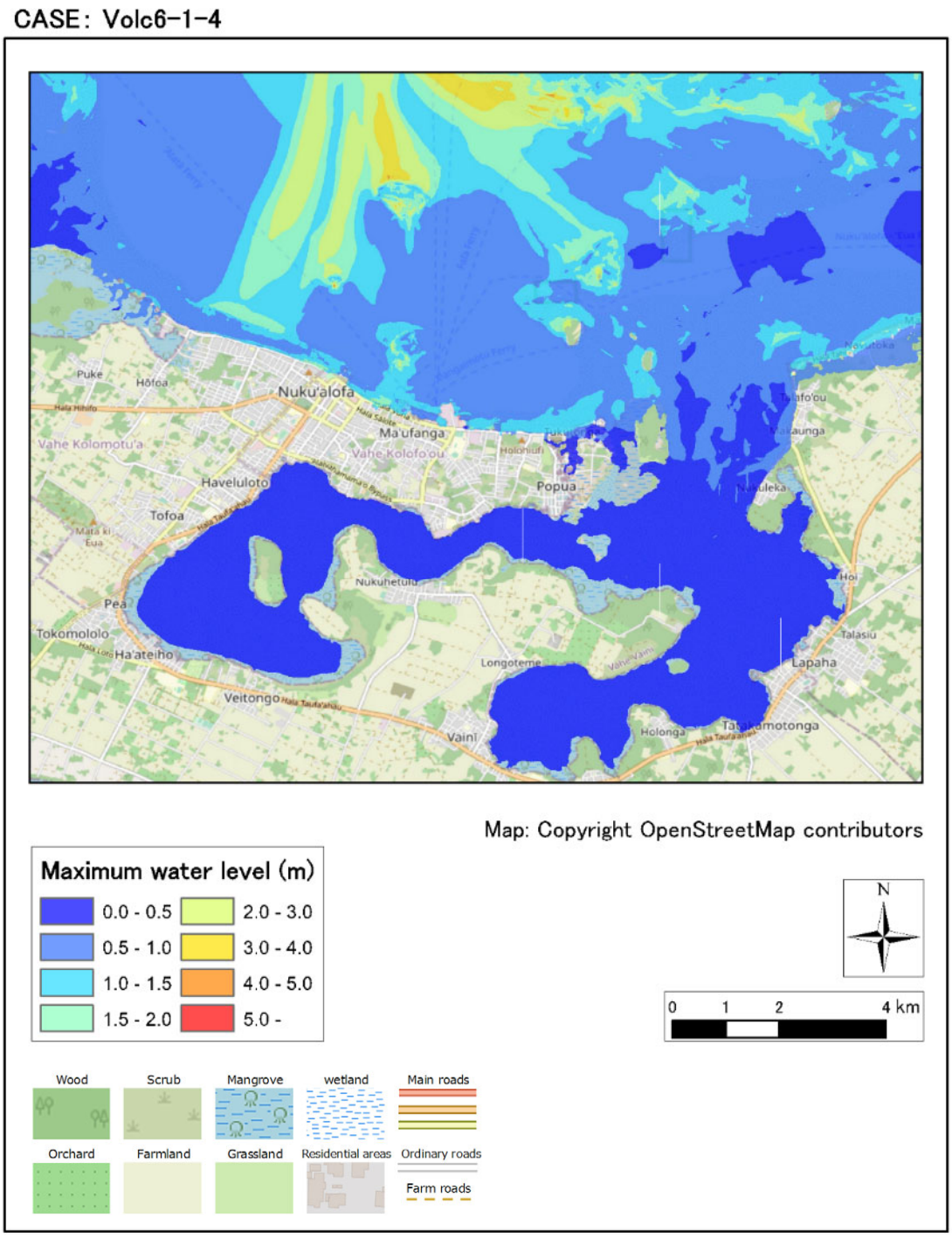
Source: JICA Study Team

Figure 2.6.183 Max Water Level Distribution (Fonuafo'ou H=30m Raised Seawall M.S.L.+3.0m)



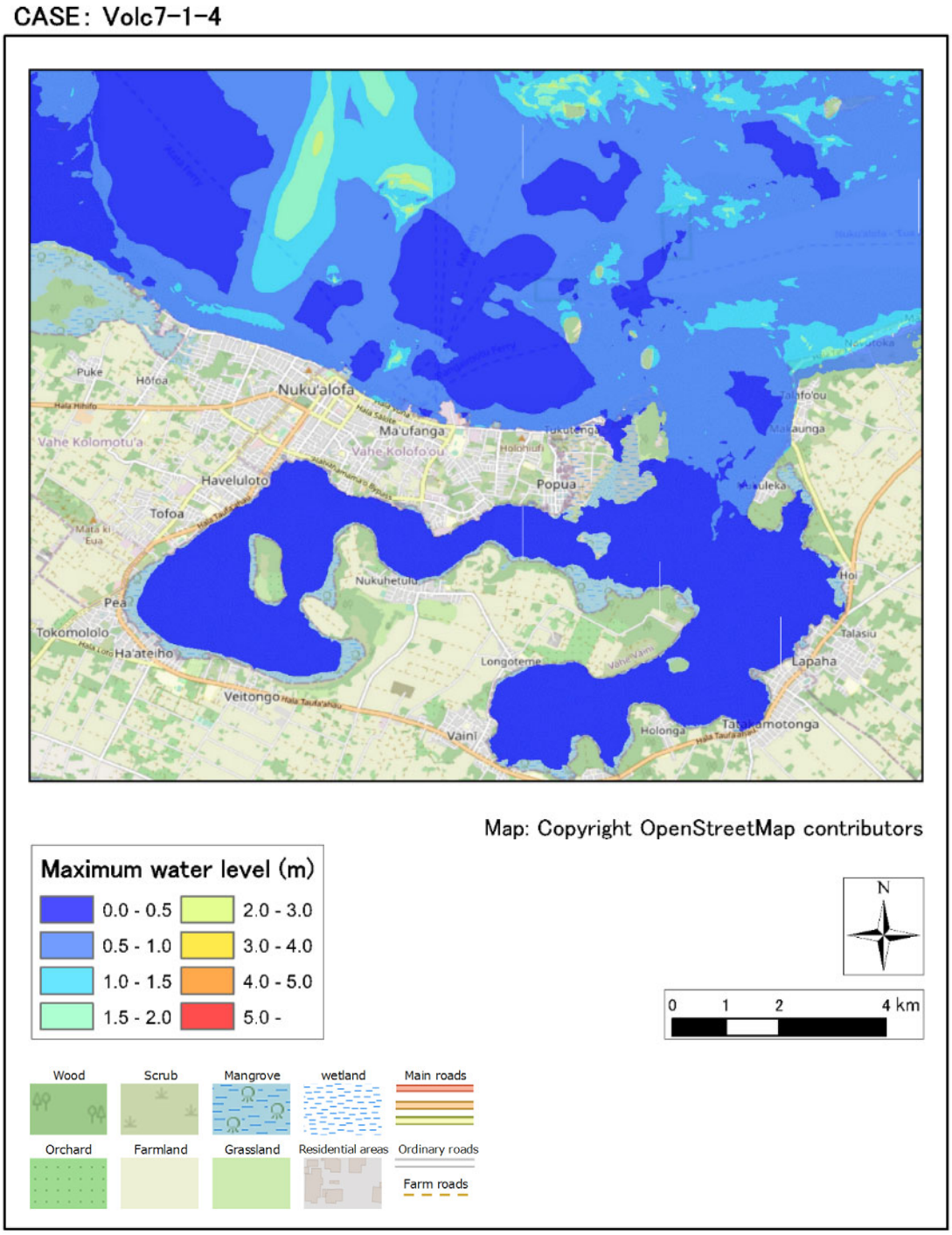
Source: JICA Study Team

Figure 2.6.184 Max Water Level Distribution (Unamed2, H=30m Raised Seawall M.S.L.+3.0m)



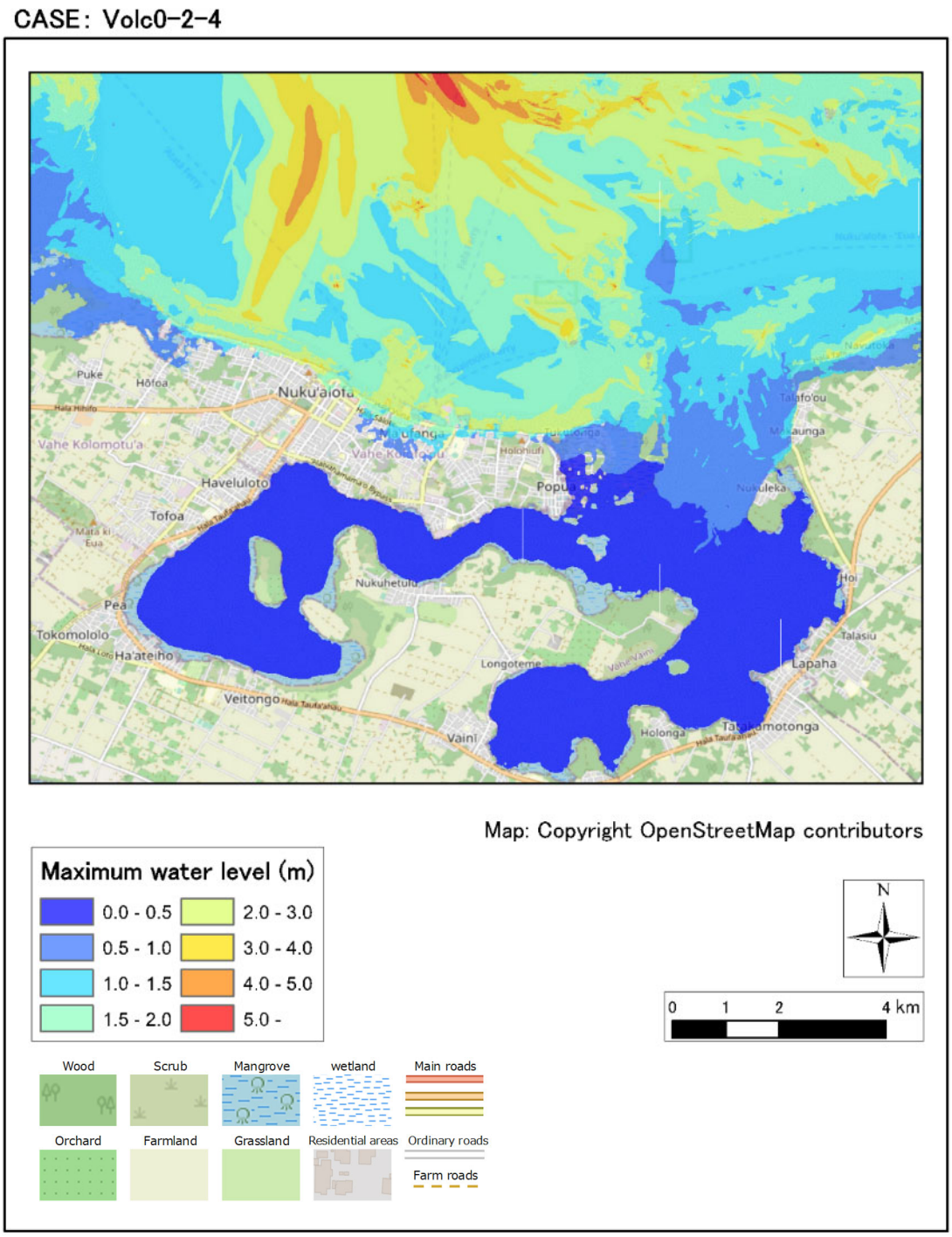
Source: JICA Study Team

Figure 2.6.185 Max Water Level Distribution (Unamed3, H=30m Raised Seawall M.S.L.+3.0m)



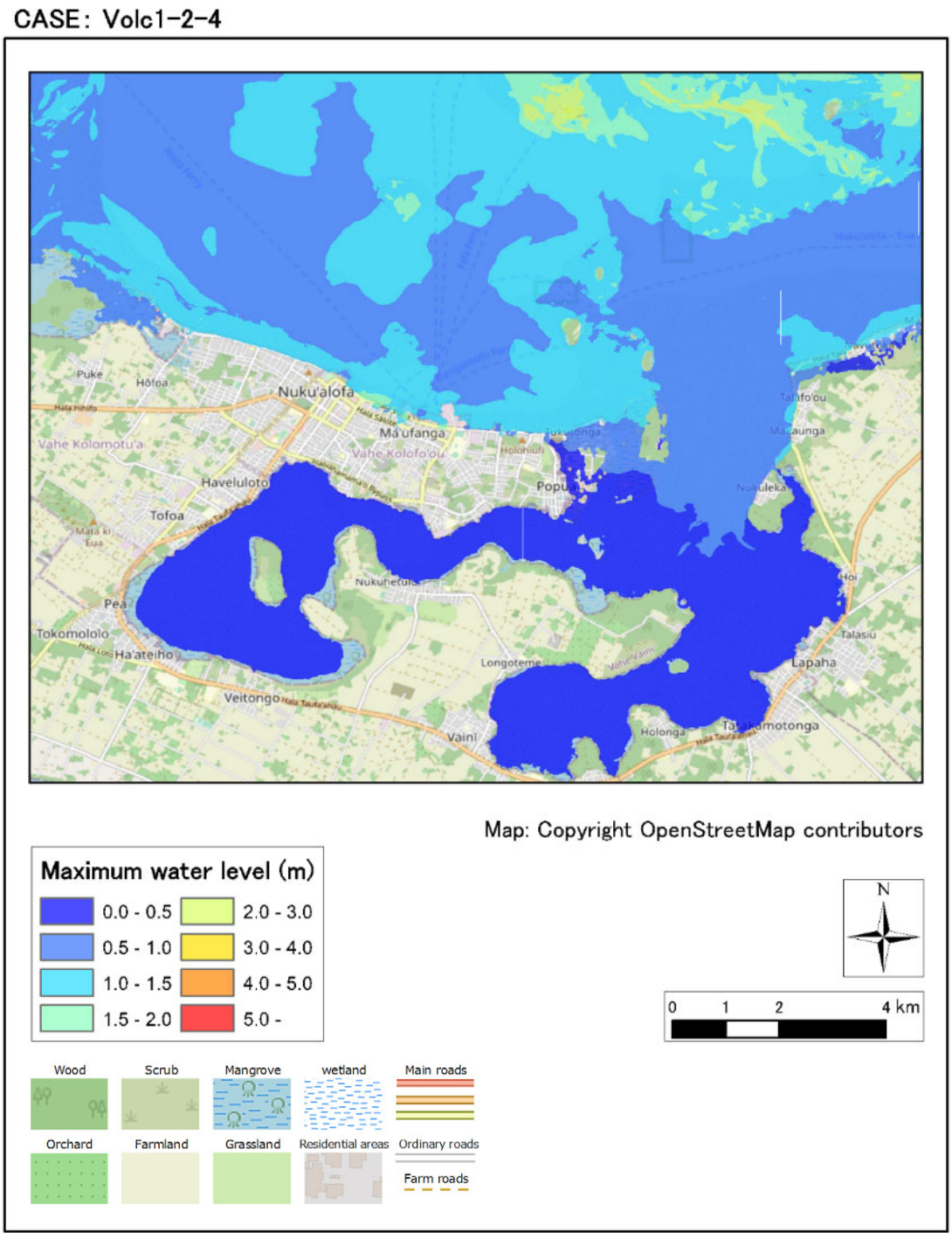
Source: JICA Study Team

Figure 2.6.186 Max Water Level Distribution (Unamed4, H=30m Raised Seawall M.S.L.+3.0m)



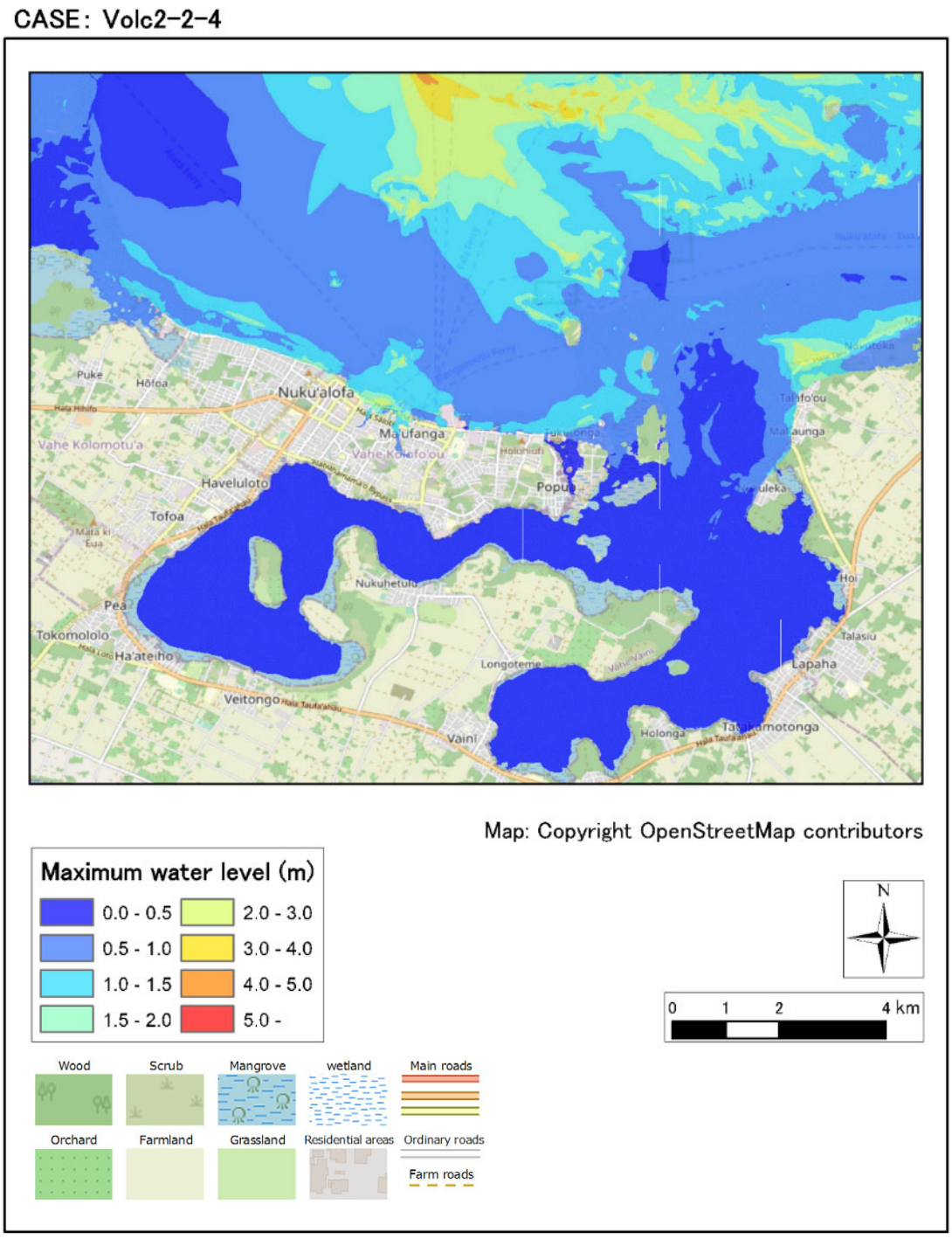
Source: JICA Study Team

Figure 2.6.187 Max Water Level Distribution (Hunga Tonga-Hunga Ha'pai, H=60m Raised Seawall M.S.L.+3.0m)



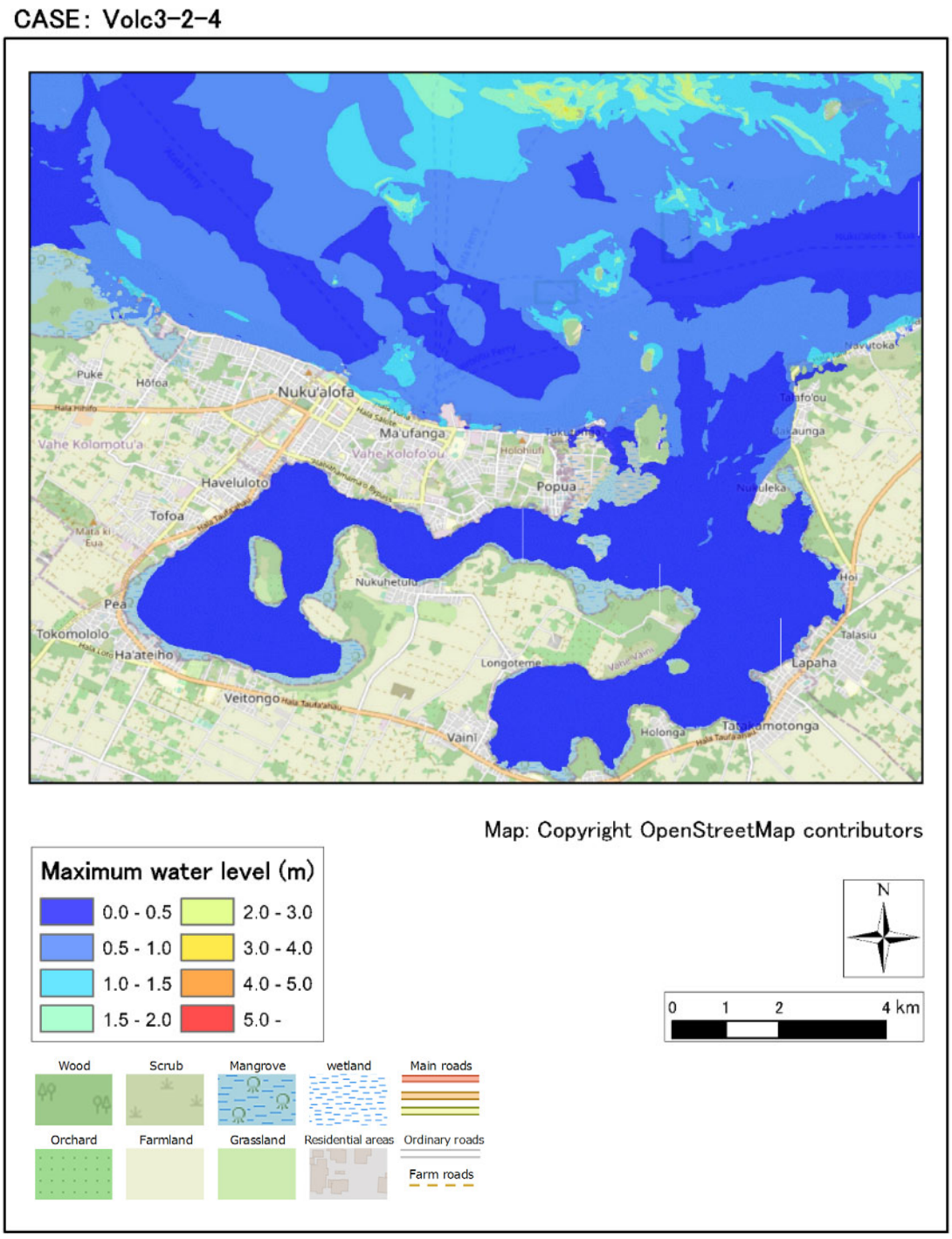
Source: JICA Study Team

Figure 2.6.188 Max Water Level Distribution (Unnamed1, H=60m Raised Seawall M.S.L.+3.0m)



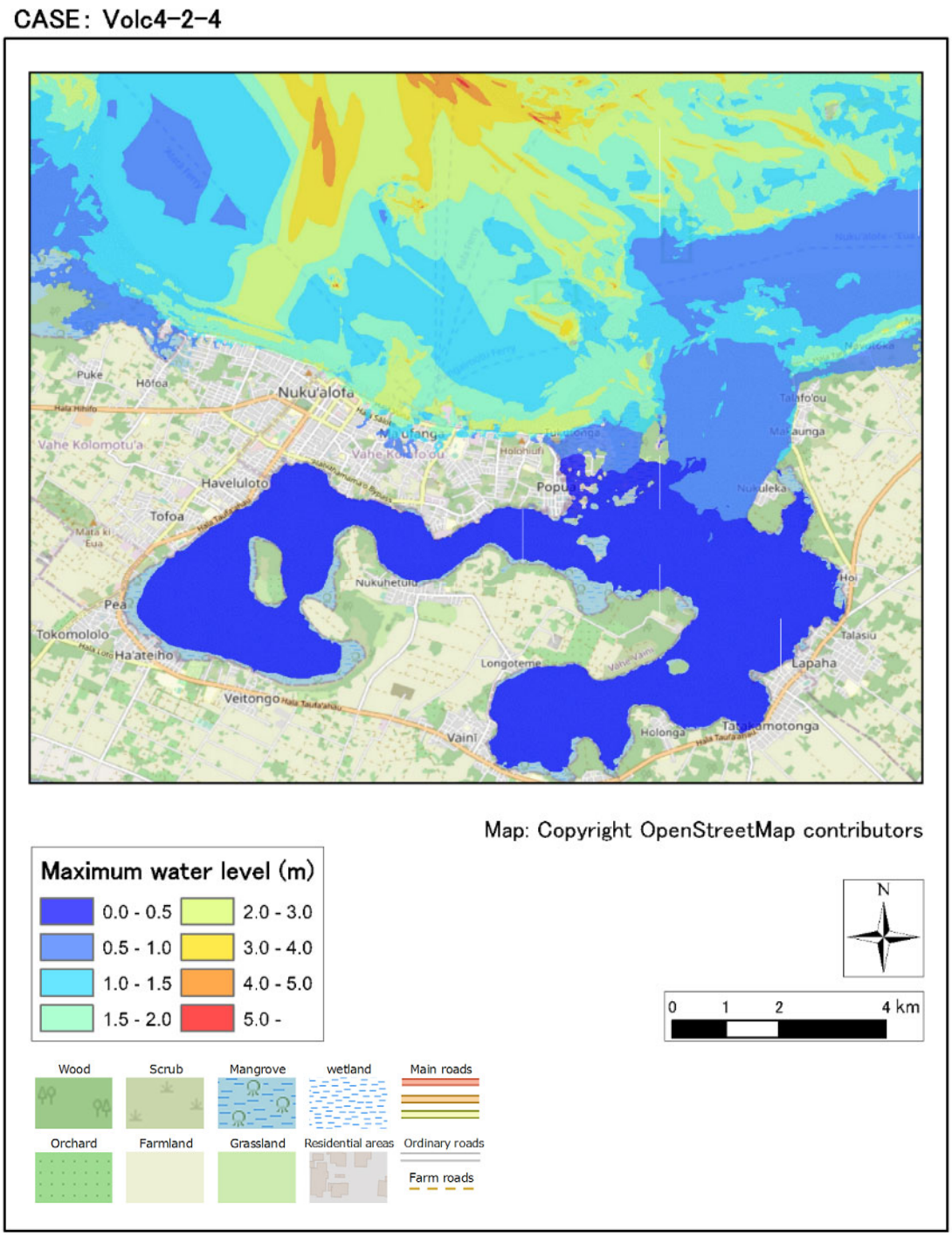
Source: JICA Study Team

Figure 2.6.189 Max Water Level Distribution (HomeReef, H=60m Raised Seawall M.S.L.+3.0m)



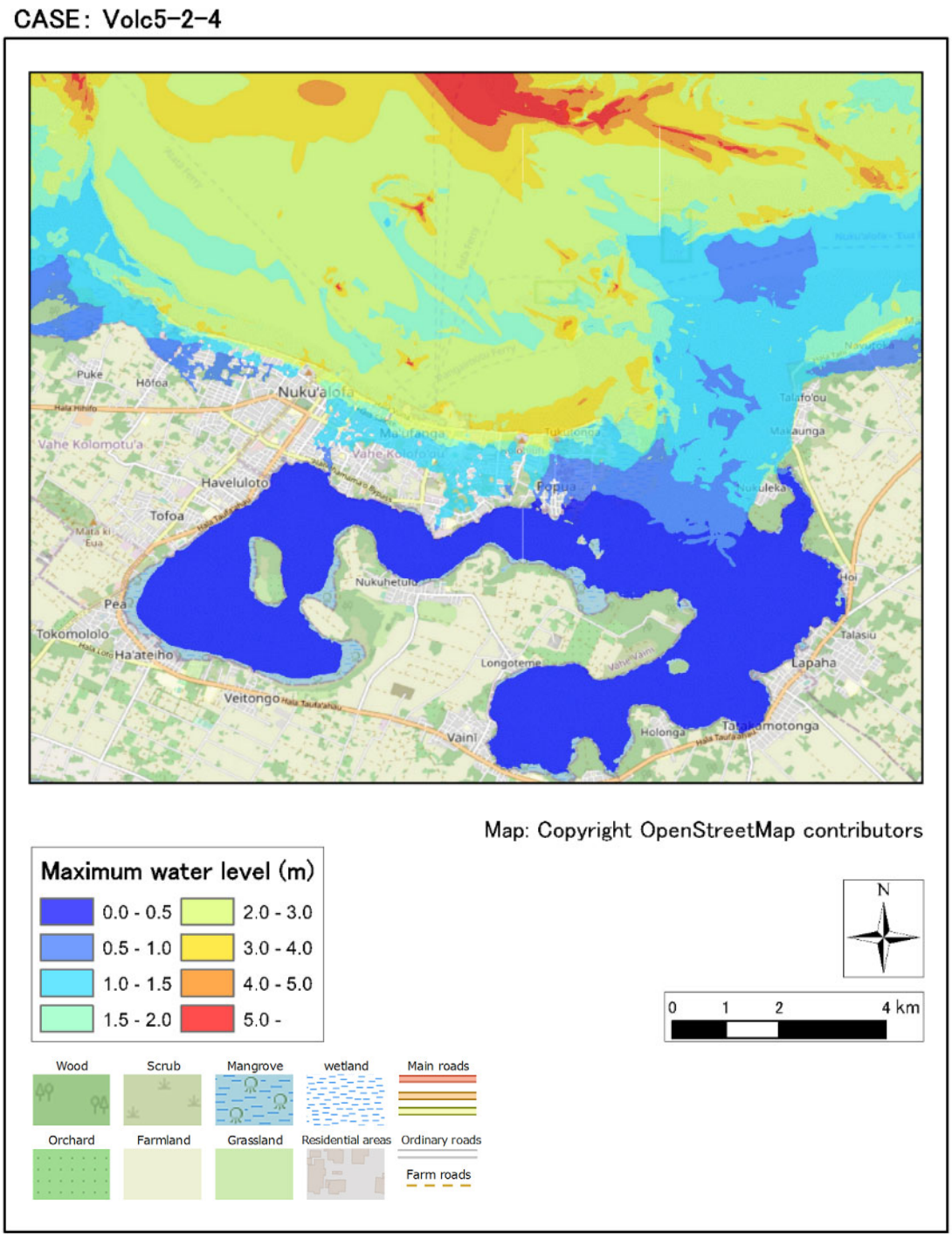
Source: JICA Study Team

Figure 2.6.190 Max Water Level Distribution (Lateiki, H=60m Raised Seawall M.S.L.+3.0m)



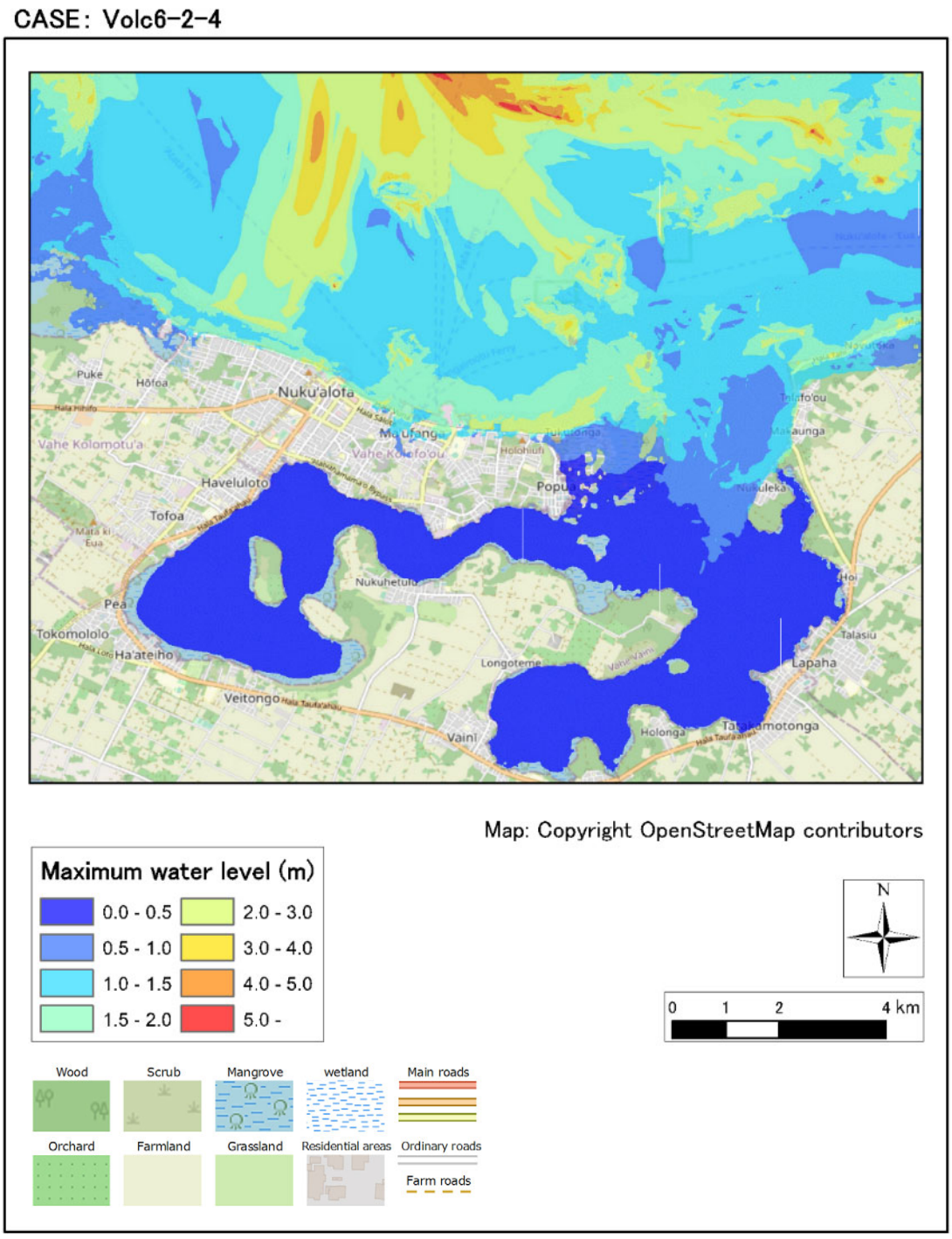
Source: JICA Study Team

Figure 2.6.191 Max Water Level Distribution (Fonuafo'ou, H=60m Raised Seawall M.S.L.+3.0m)



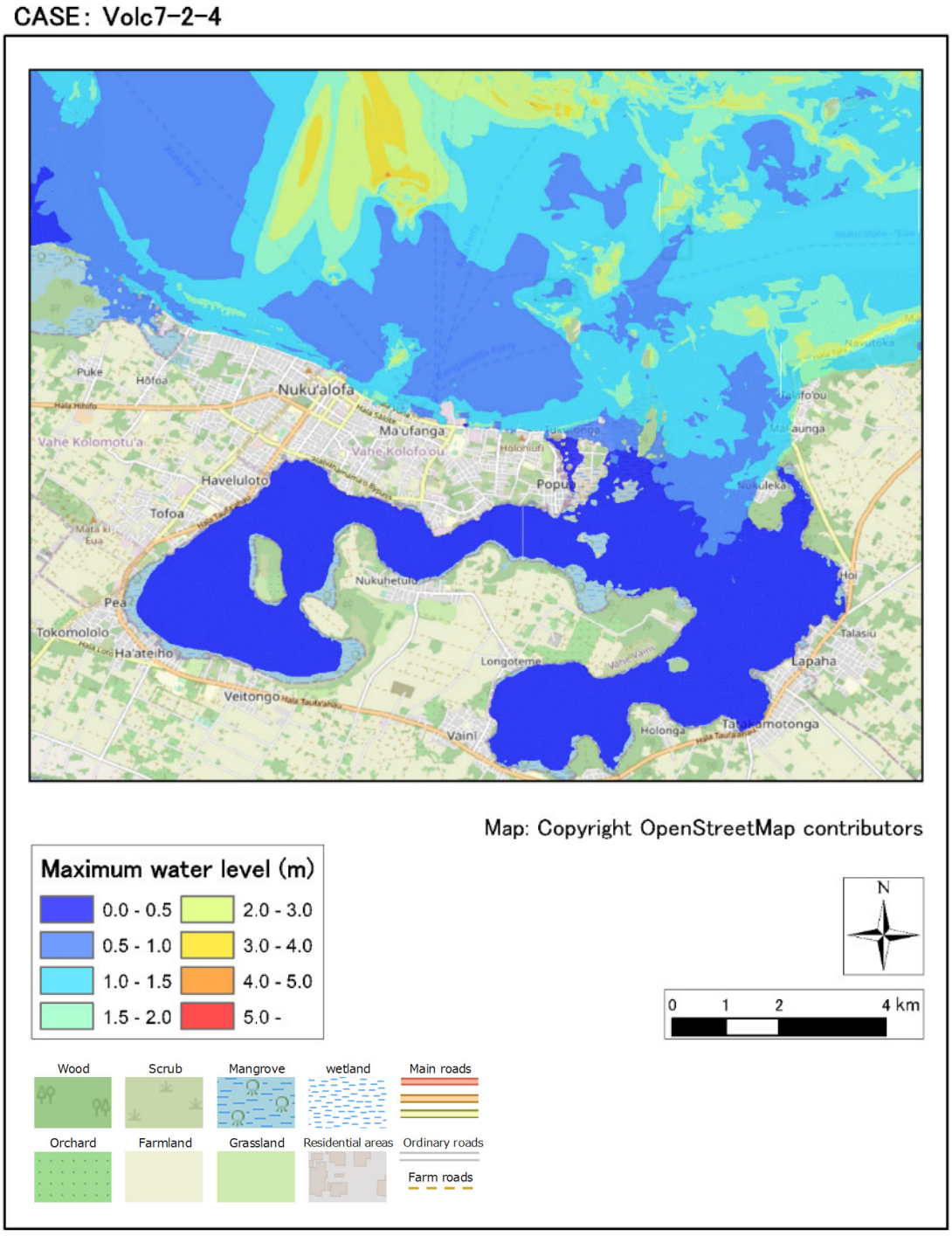
Source: JICA Study Team

Figure 2.6.192 Max Water Level Distribution (Unamed2, H=60m Raised Seawall M.S.L.+3.0m)



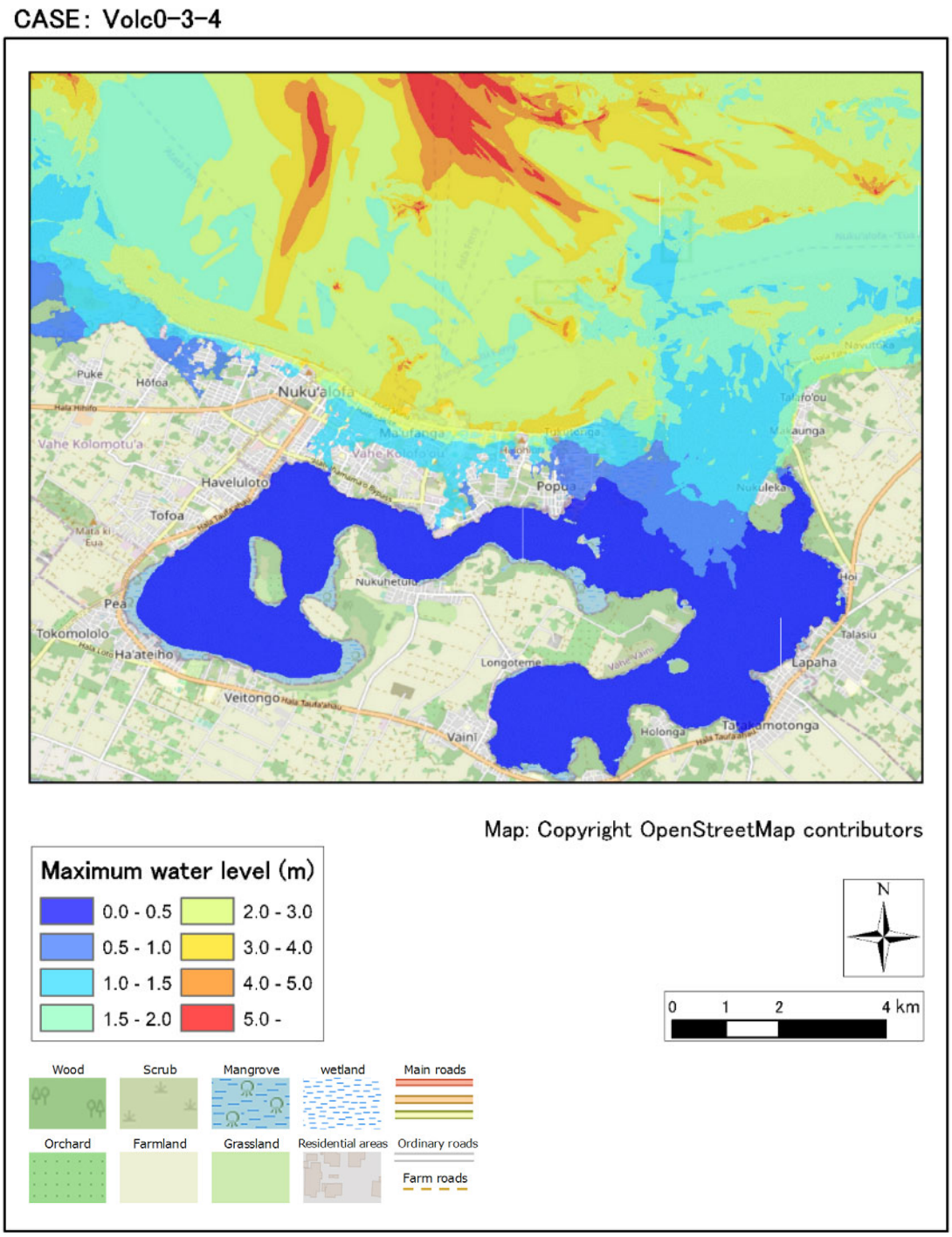
Source: JICA Study Team

Figure 2.6.193 Max Water Level Distribution (Unamed3, H=60m Raised Seawall M.S.L.+3.0m)



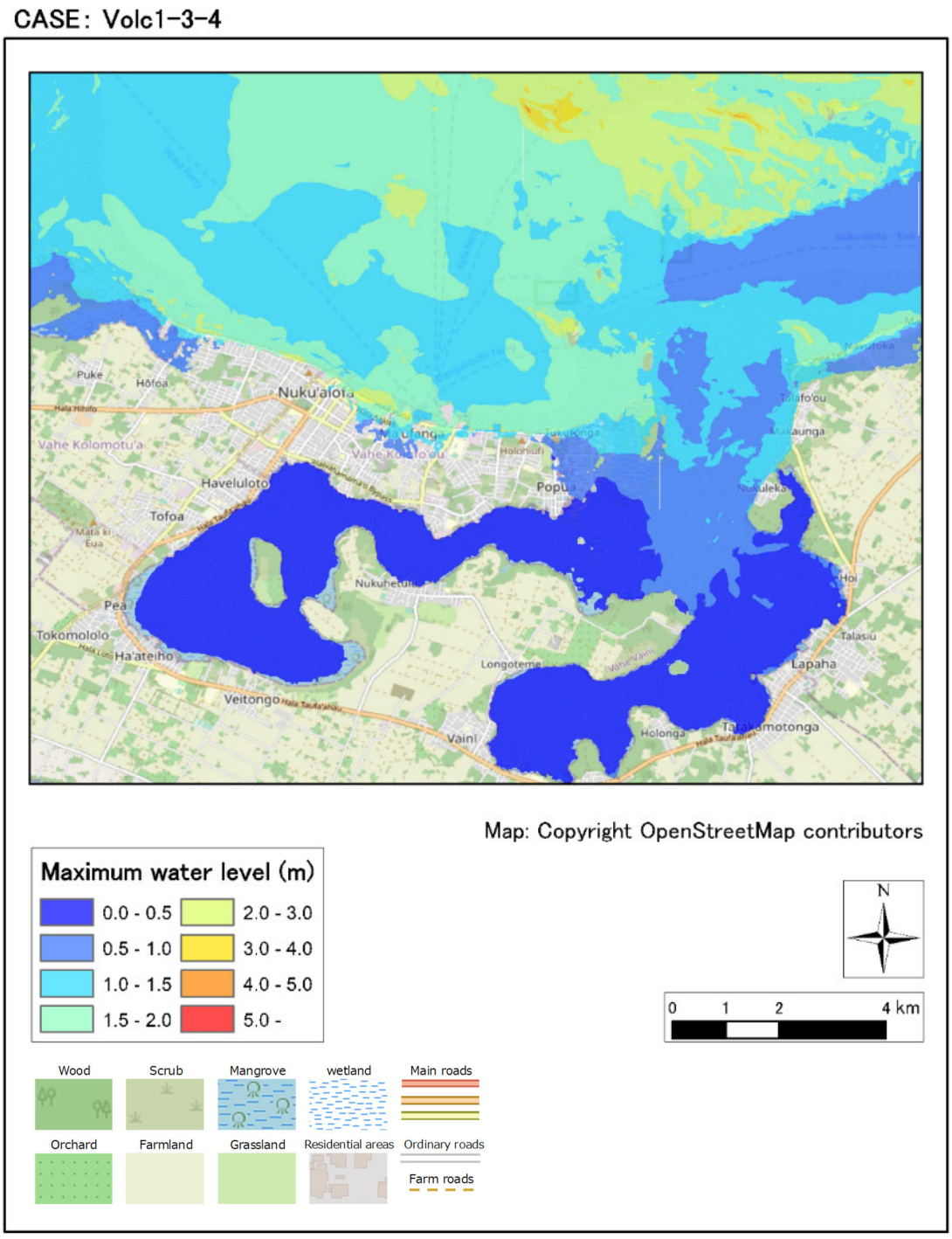
Source: JICA Study Team

Figure 2.6.194 Max Water Level Distribution (Unamed4, H=60m Raised Seawall M.S.L.+3.0m)



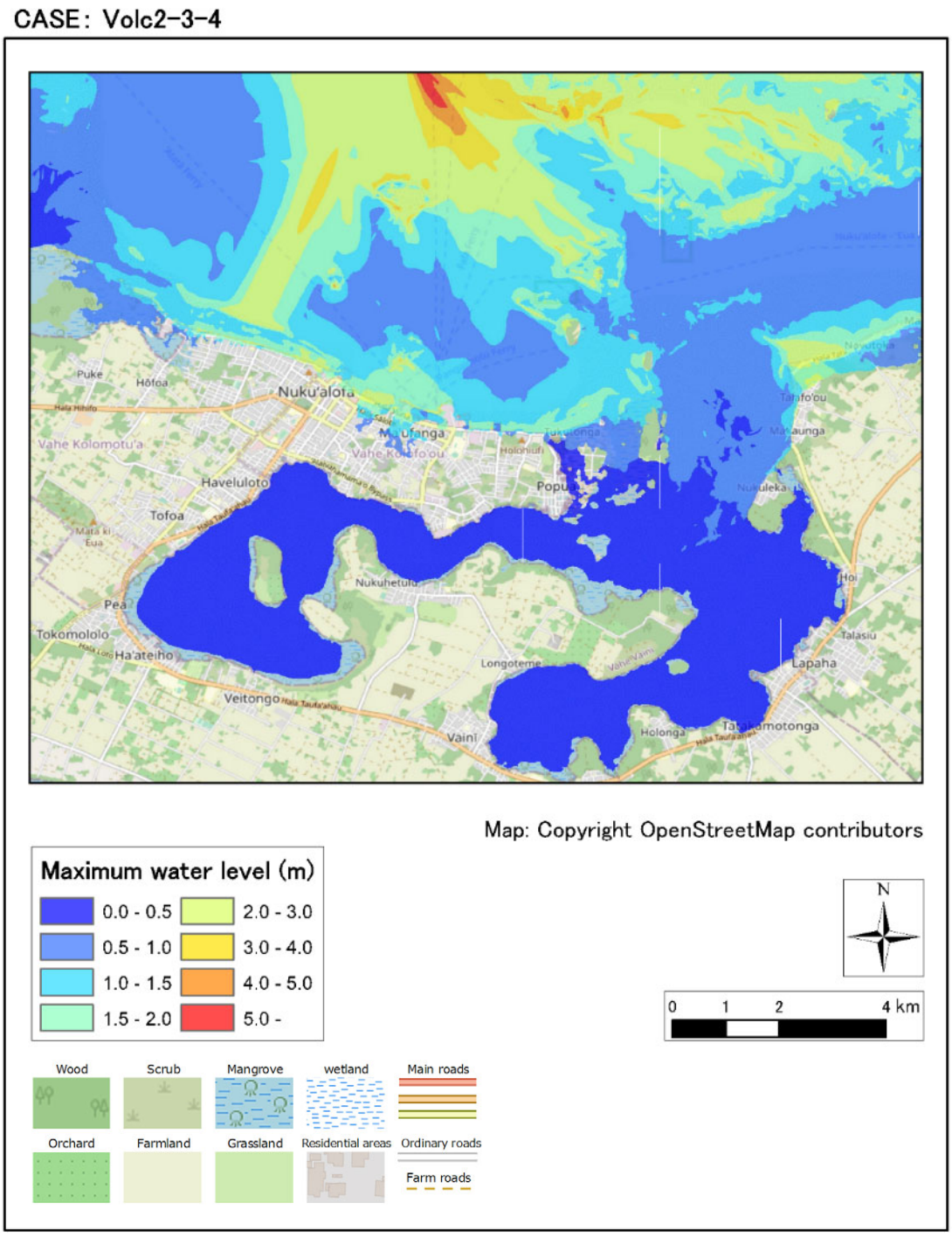
Source: JICA Study Team

Figure 2.6.195 Max Water Level Distribution (Hunga Tonga-Hunga Ha'pai, H=90m Raised Seawall M.S.L.+3.0m)



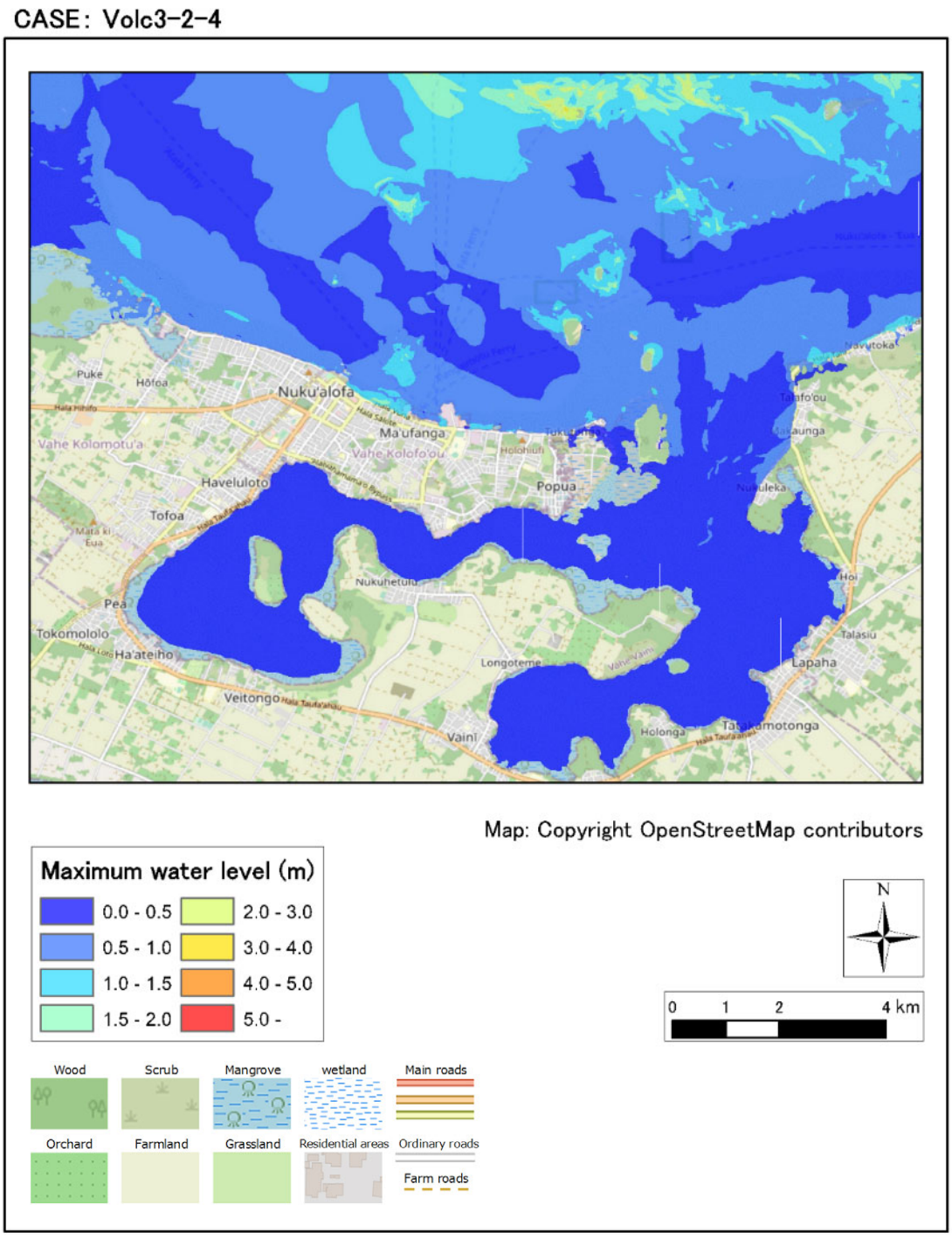
Source: JICA Study Team

Figure 2.6.196 Max Water Level Distribution (Unnamed1, H=90m Raised Seawall M.S.L.+3.0m)



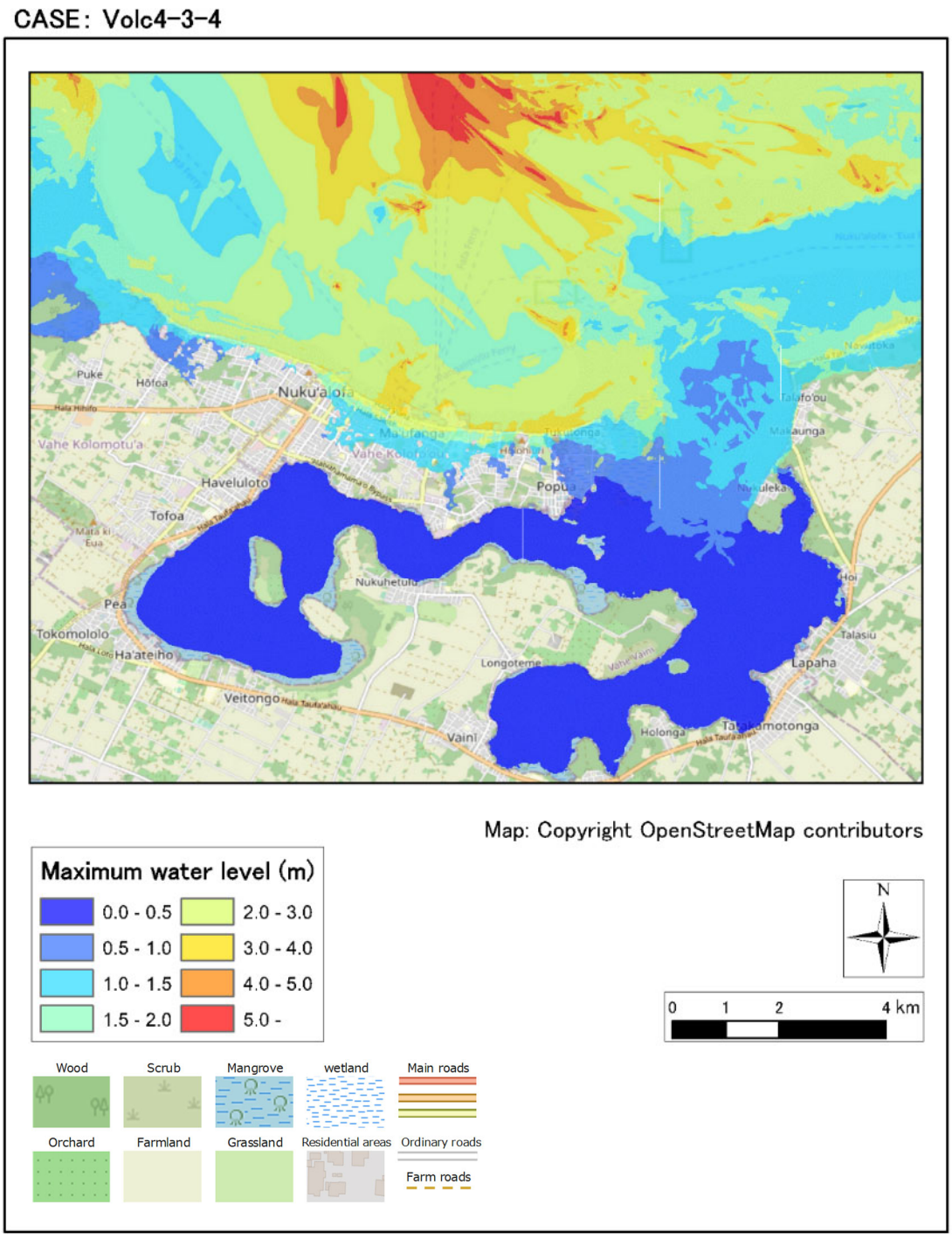
Source: JICA Study Team

Figure 2.6.197 Max Water Level Distribution (HomeReef, H=90m Raised Seawall M.S.L.+3.0m)



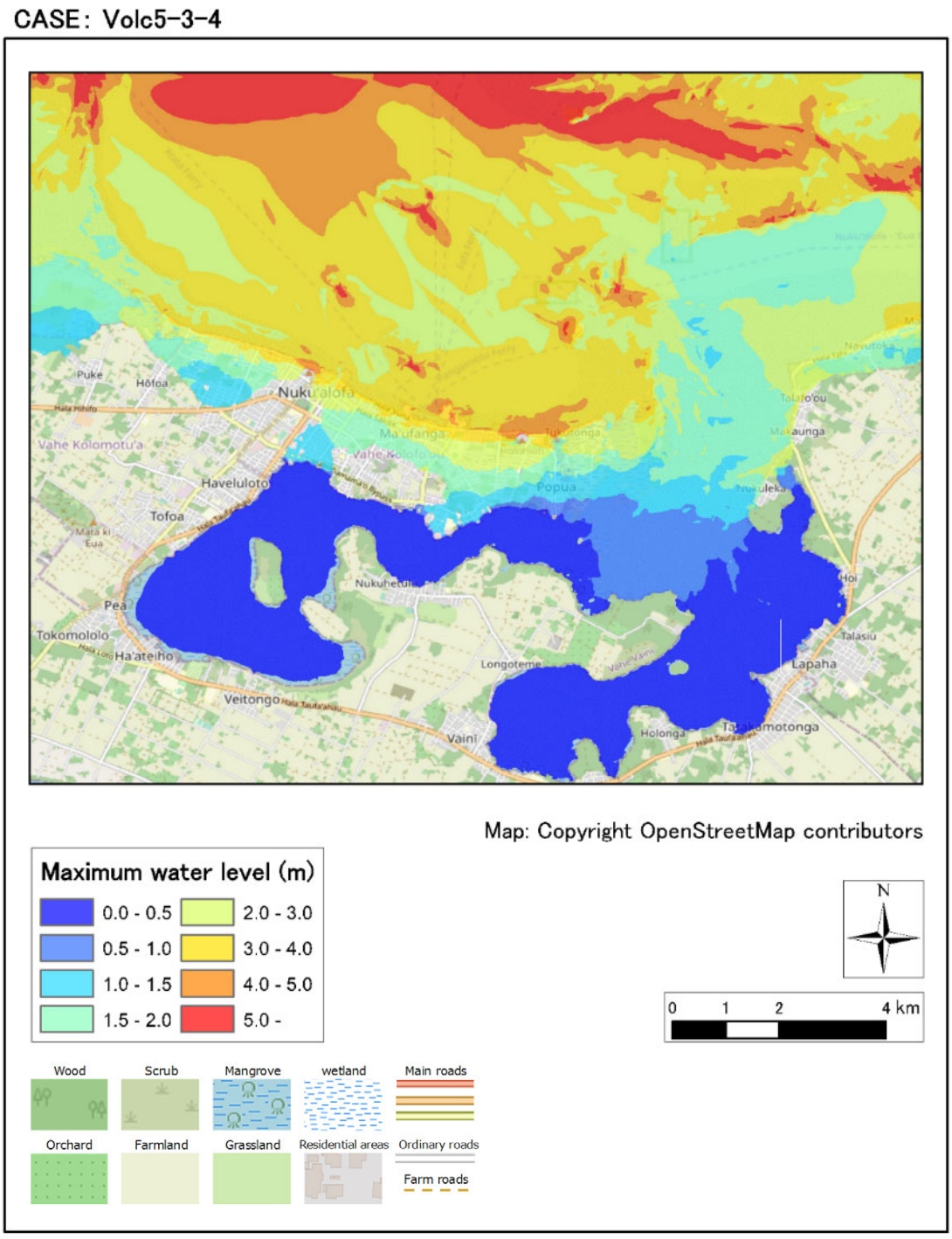
Source: JICA Study Team

Figure 2.6.198 Max Water Level Distribution (Lateiki, H=90m Raised Seawall M.S.L.+3.0m)



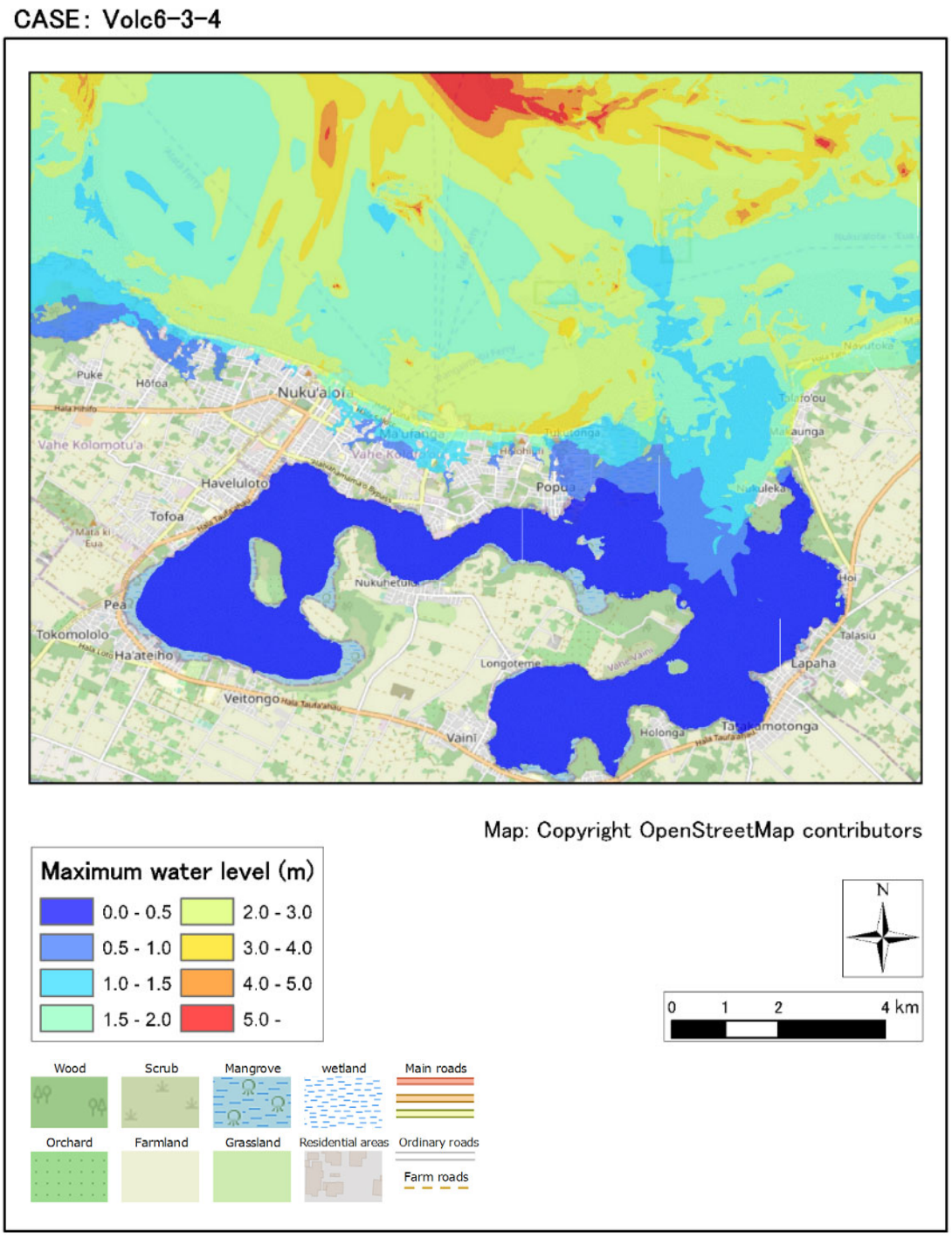
Source: JICA Study Team

Figure 2.6.199 Max Water Level Distribution (Fonuafo'ou, H=90m Raised Seawall M.S.L.+3.0m)



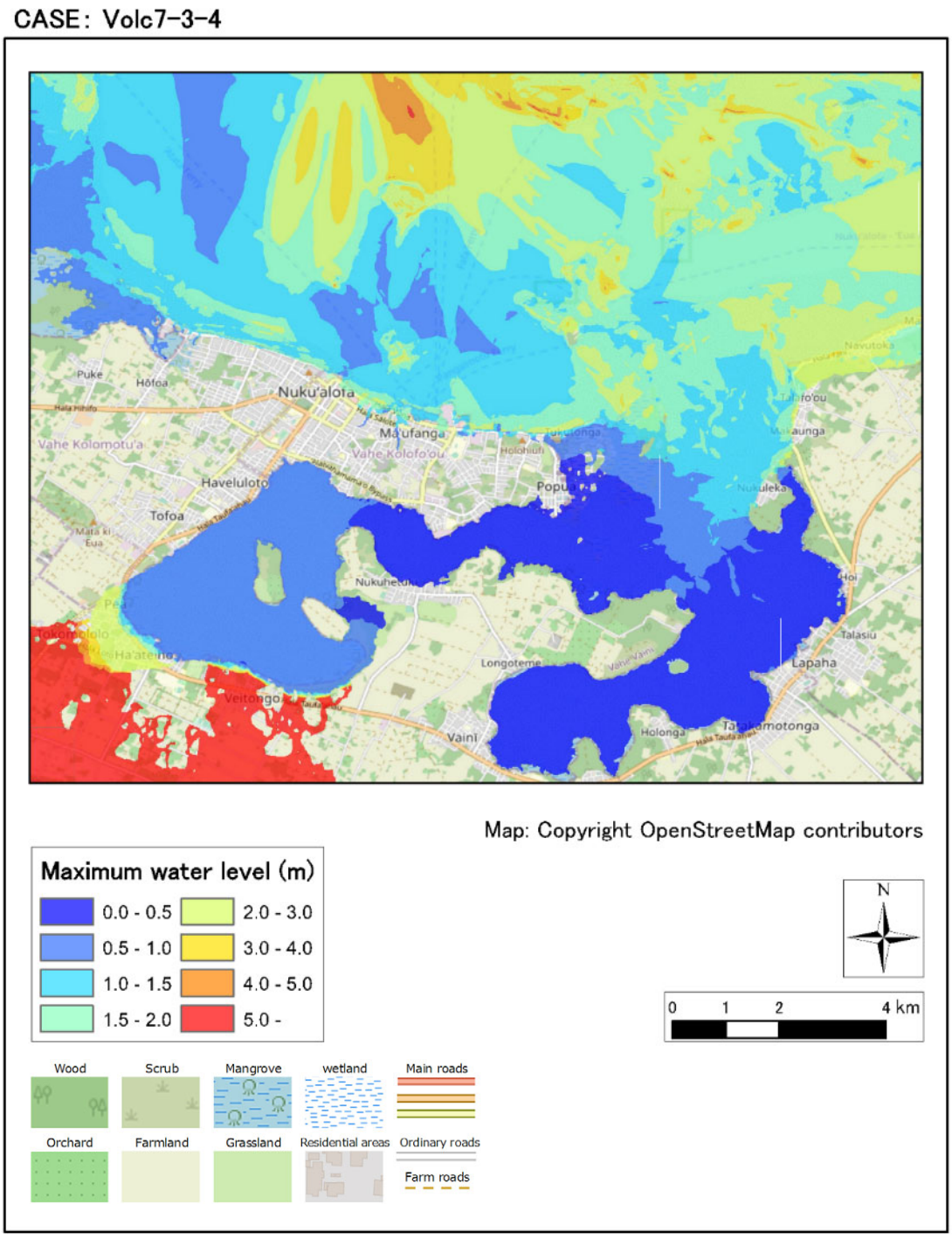
Source: JICA Study Team

Figure 2.6.200 Max Water Level Distribution (Unamed2, H=90m Raised Seawall M.S.L.+3.0m)



Source: JICA Study Team

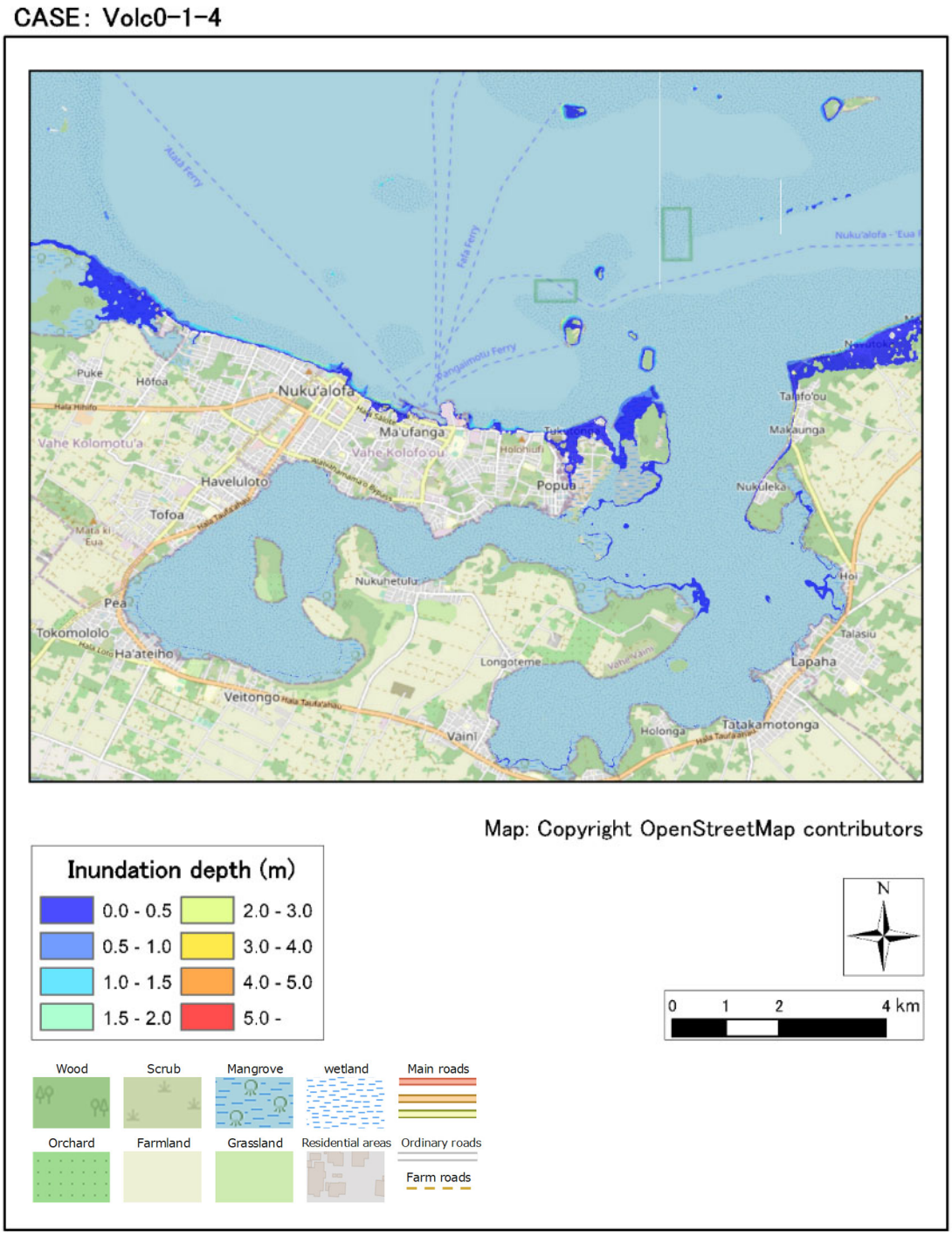
Figure 2.6.201 Max Water Level Distribution (Unamed3, H=90m Raised Seawall M.S.L.+3.0m)



Source: JICA Study Team

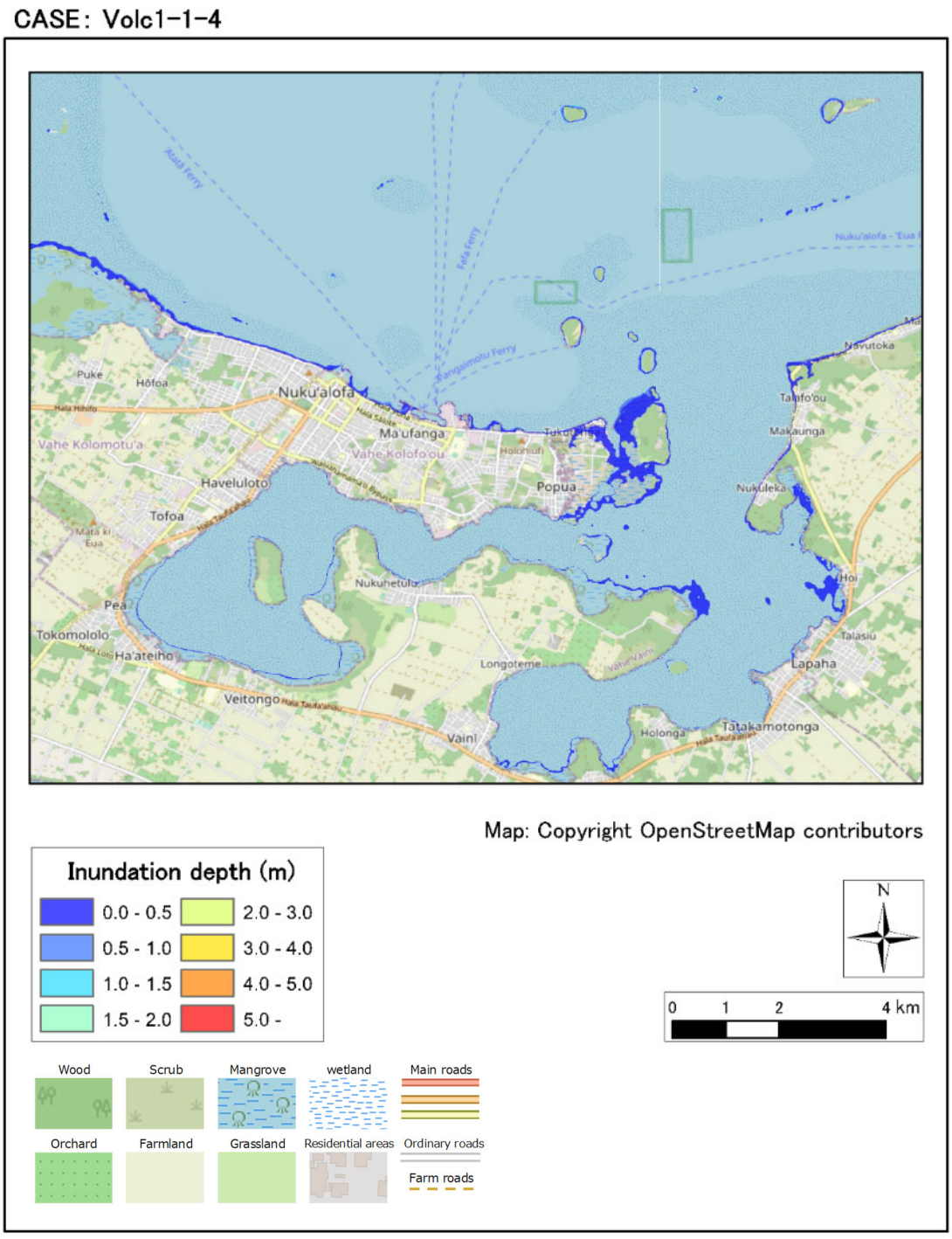
Figure 2.6.202 Max Water Level Distribution (Unamed4, H=90m Raised Seawall M.S.L.+3.0m)

b. B.Max inundation depth distribution diagram



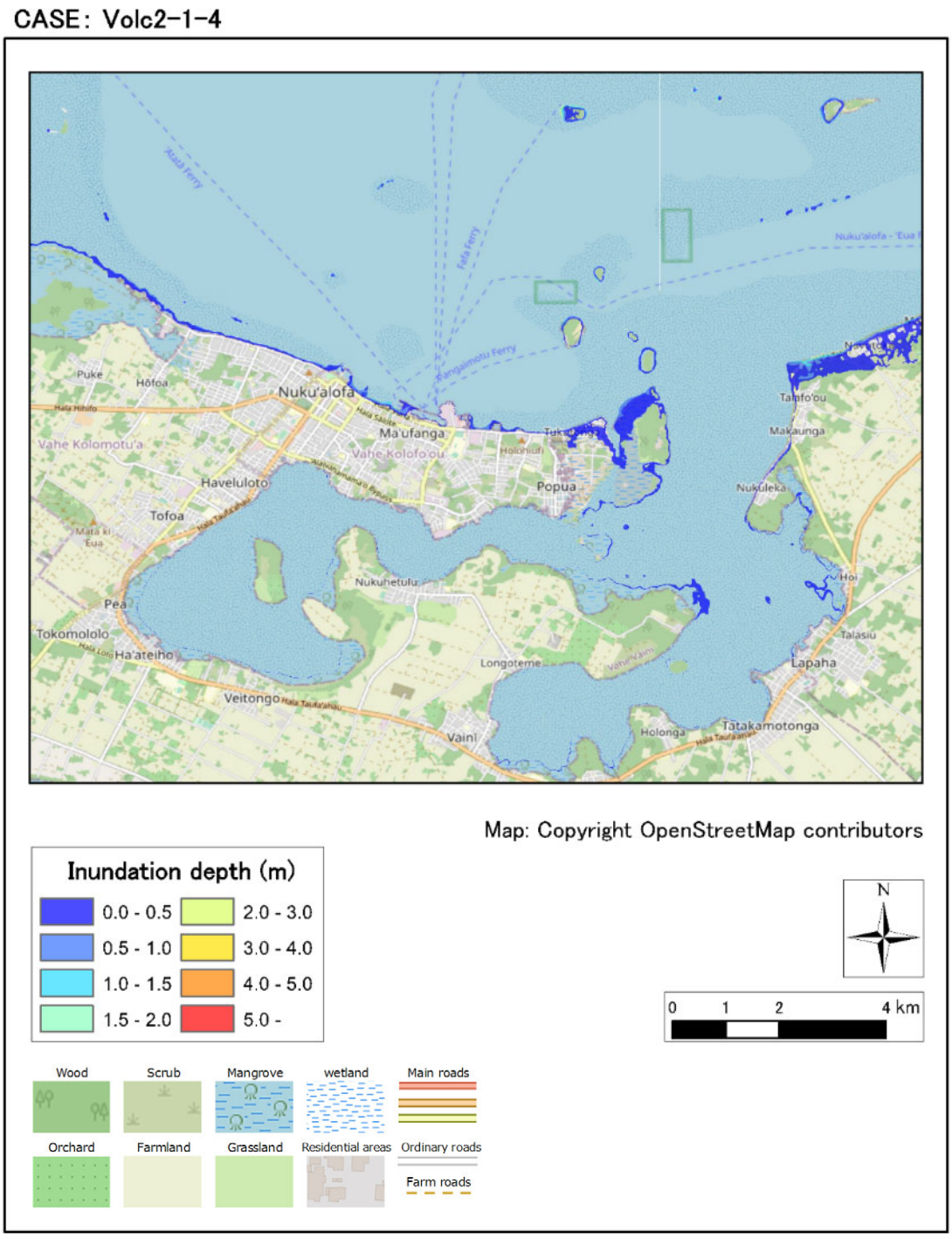
Source: JICA Study Team

Figure 2.6.203 Max inundation depth distribution (Hunga Tonga-Hunga Ha'pai, H=30m Raised Seawall M.S.L.+3.0m)



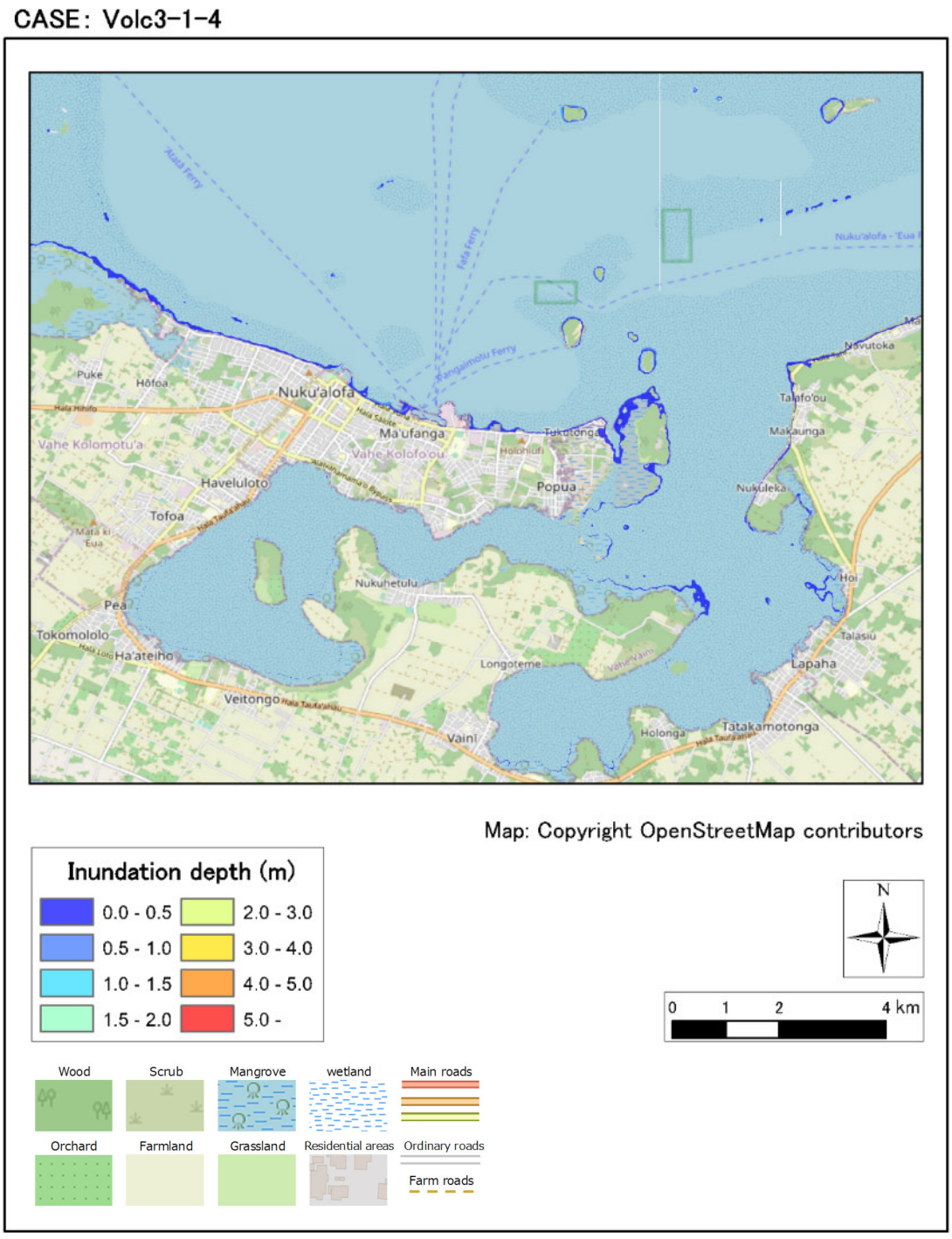
Source: JICA Study Team

Figure 2.6.204 Max inundation depth distribution (Unnamed1, H=30m Raised Seawall M.S.L.+3.0m)



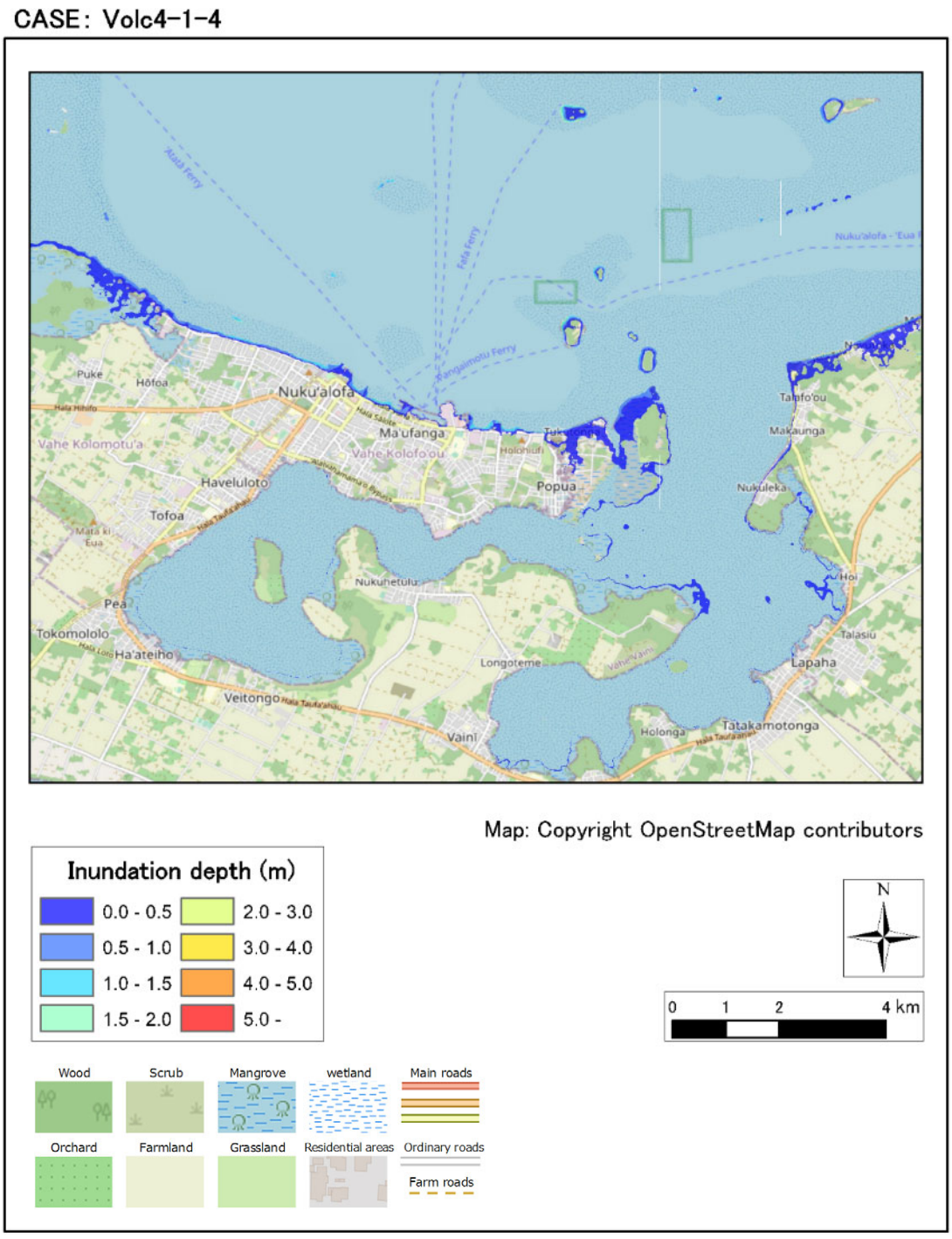
Source: JICA Study Team

Figure 2.6.205 Max inundation depth distribution (HomeReef, H=30m Raised Seawall M.S.L.+3.0m)



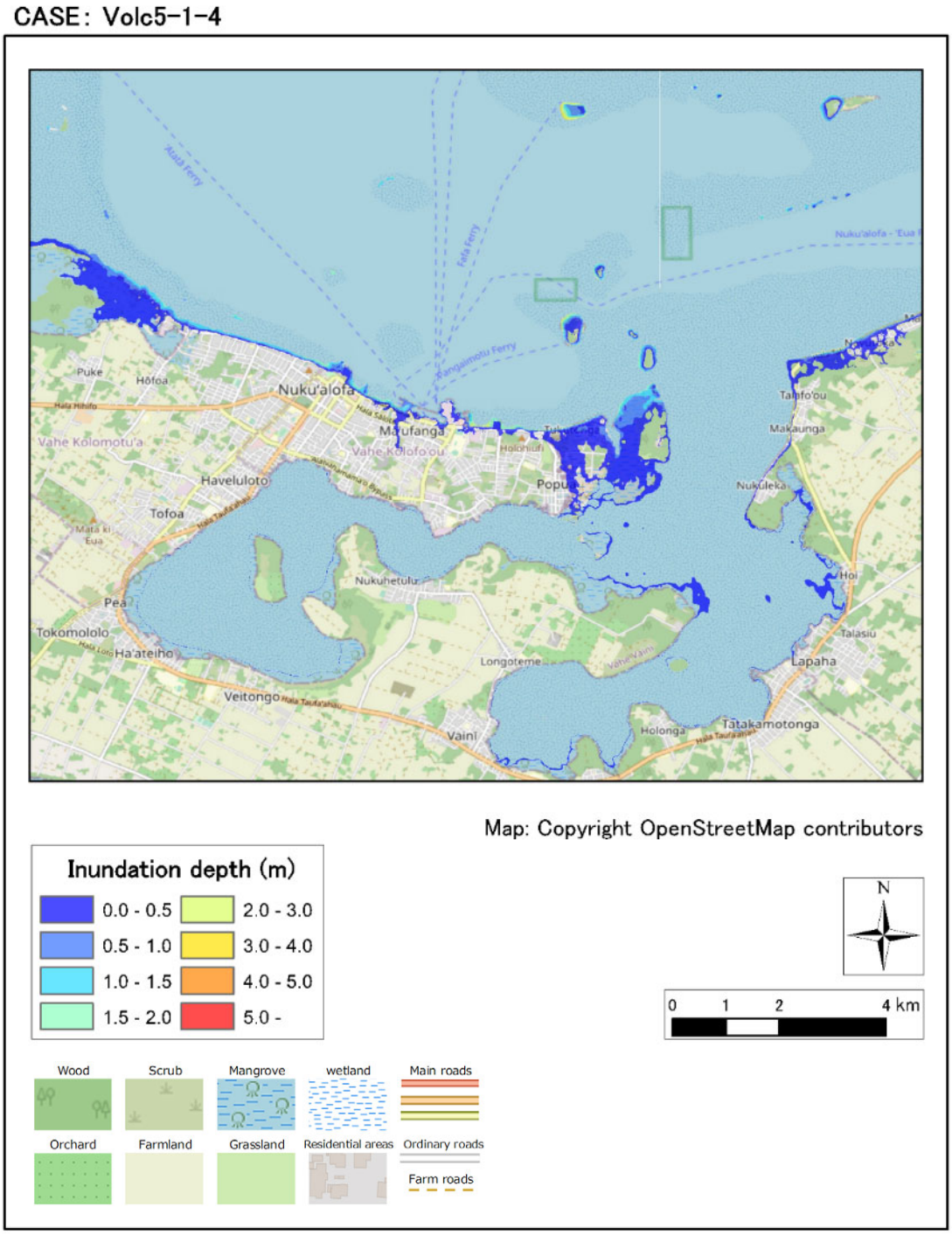
Source: JICA Study Team

Figure 2.6.206 Max inundation depth distribution (Lateiki, H=30m Raised Seawall M.S.L.+3.0m)



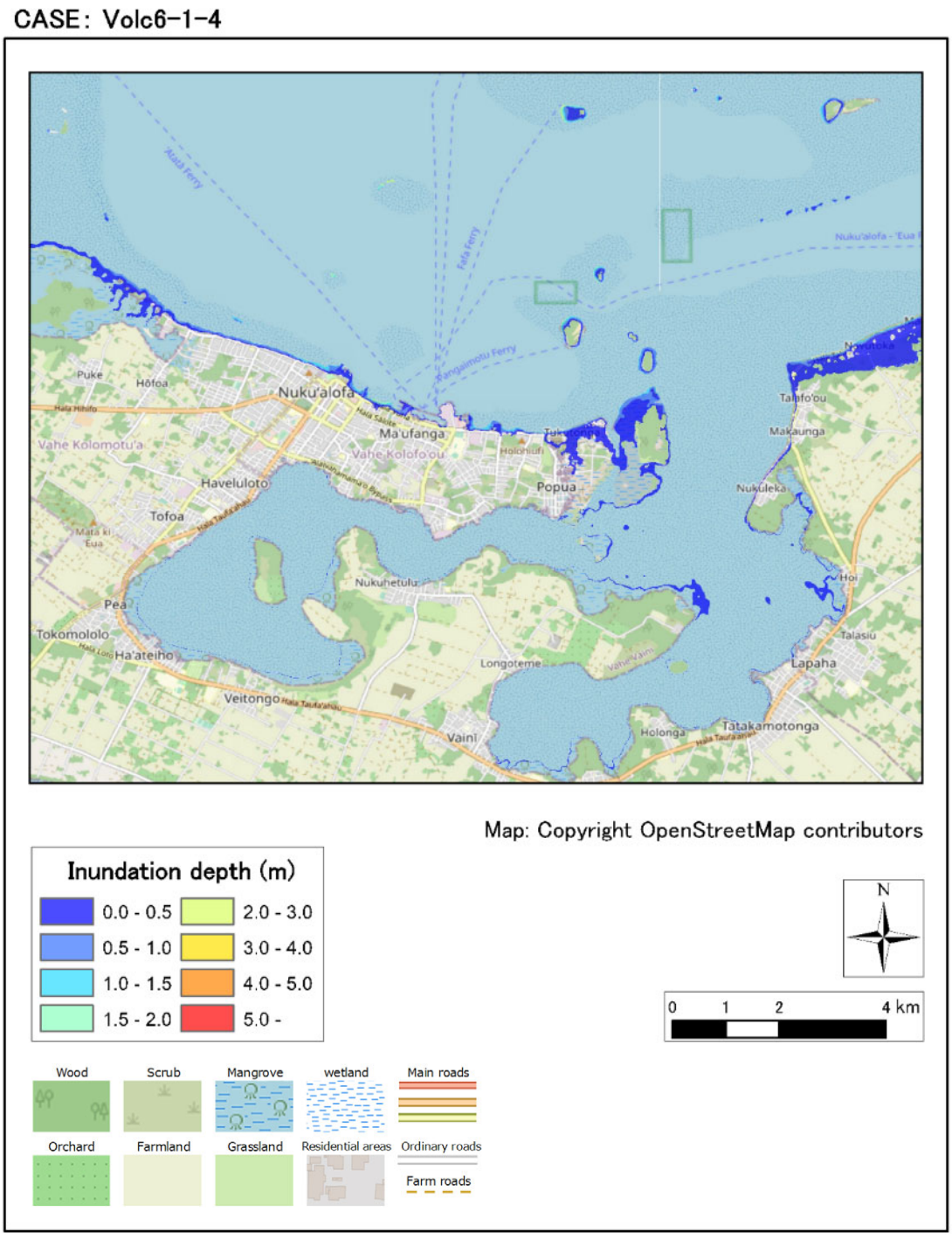
Source: JICA Study Team

Figure 2.6.207 Max inundation depth distribution (Fonuafo'ou H=30m Raised Seawall M.S.L.+3.0m)



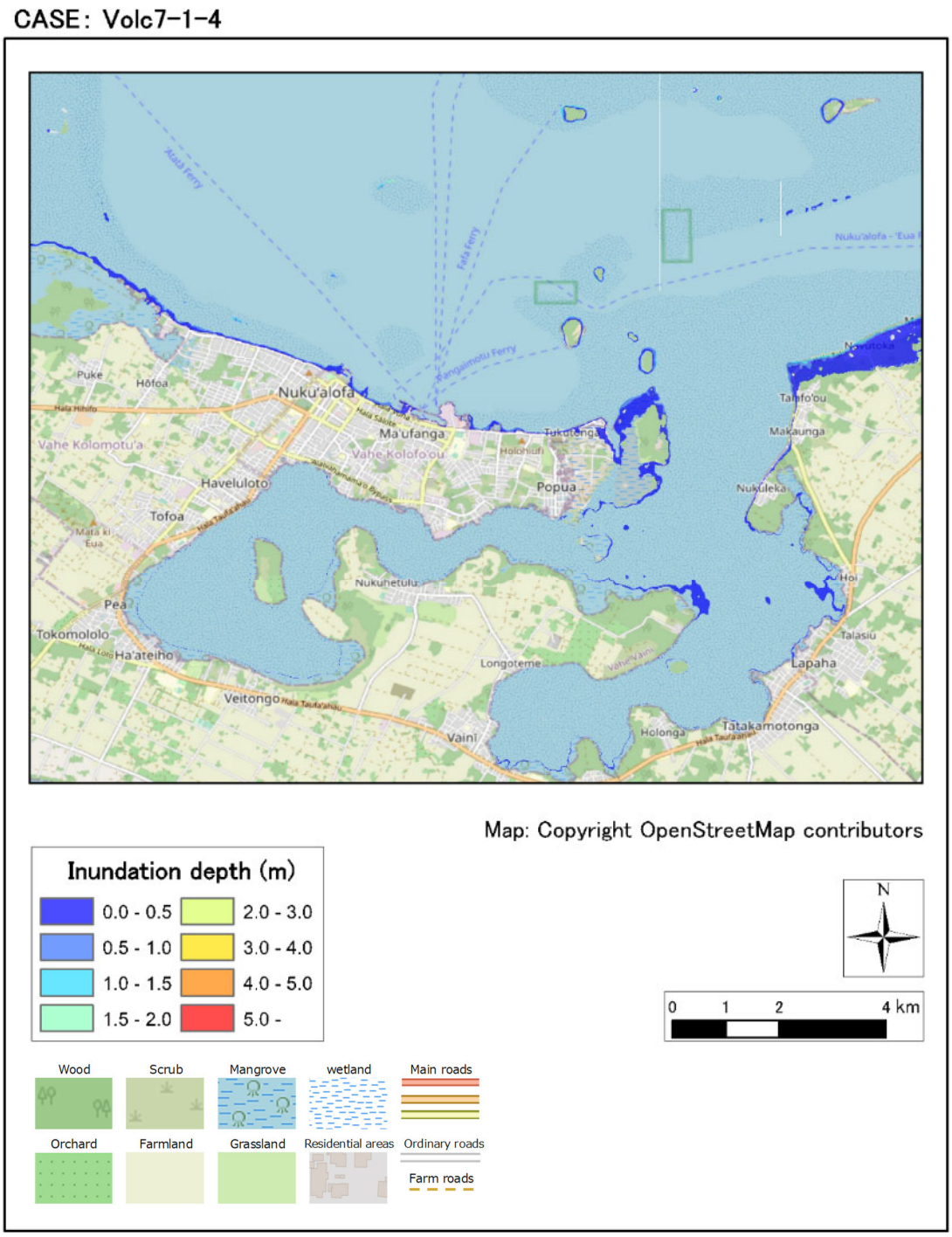
Source: JICA Study Team

Figure 2.6.208 Max inundation depth distribution (Unamed2, H=30m Raised Seawall M.S.L.+3.0m)



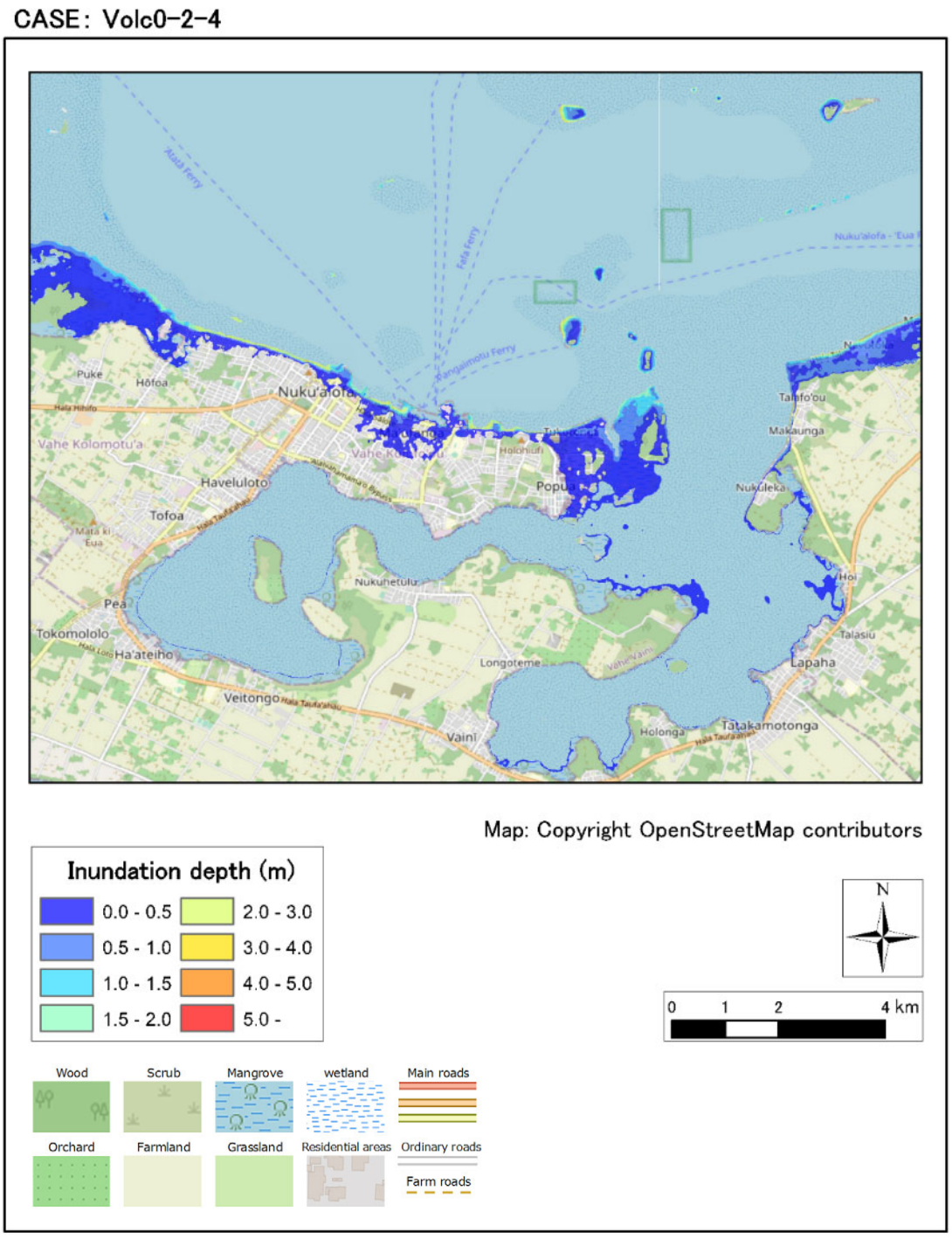
Source: JICA Study Team

Figure 2.6.209 Max inundation depth distribution (Unamed3, H=30m Raised Seawall M.S.L.+3.0m)



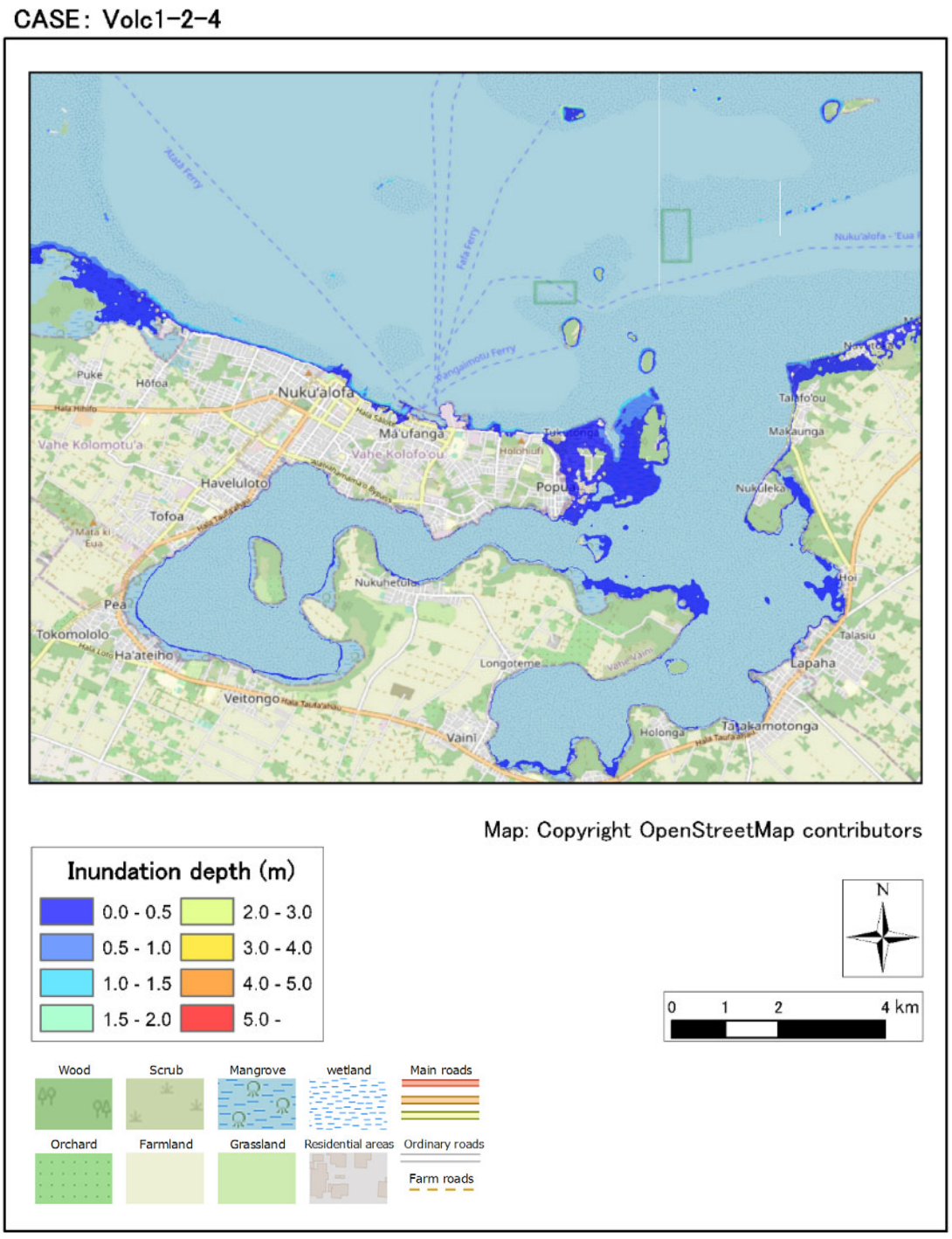
Source: JICA Study Team

Figure 2.6.210 Max inundation depth distribution (Unamed4, H=30m Raised Seawall M.S.L.+3.0m)



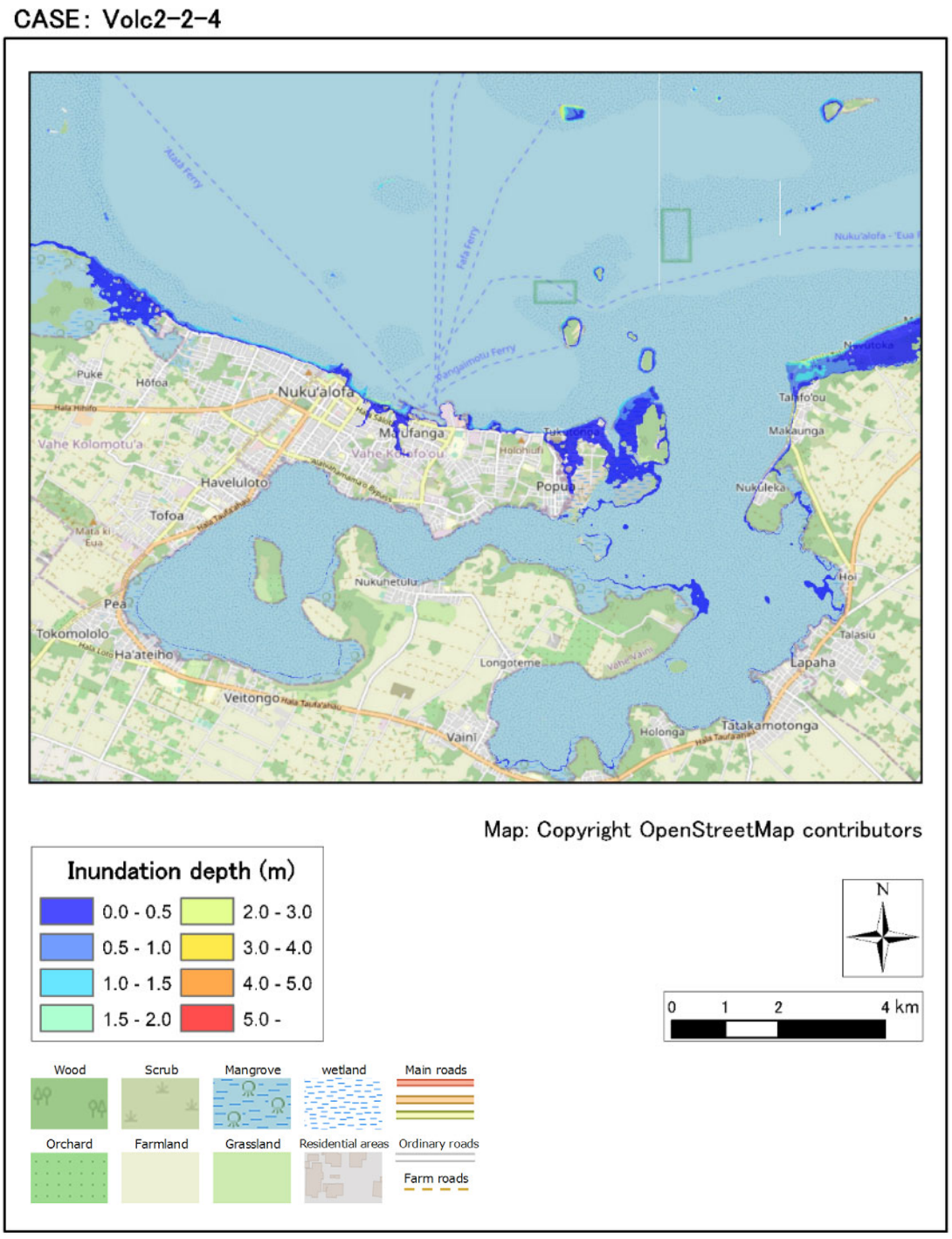
Source: JICA Study Team

Figure 2.6.211 Max inundation depth distribution (Hunga Tonga-Hunga Ha'pai, H=60m Raised Seawall M.S.L.+3.0m)



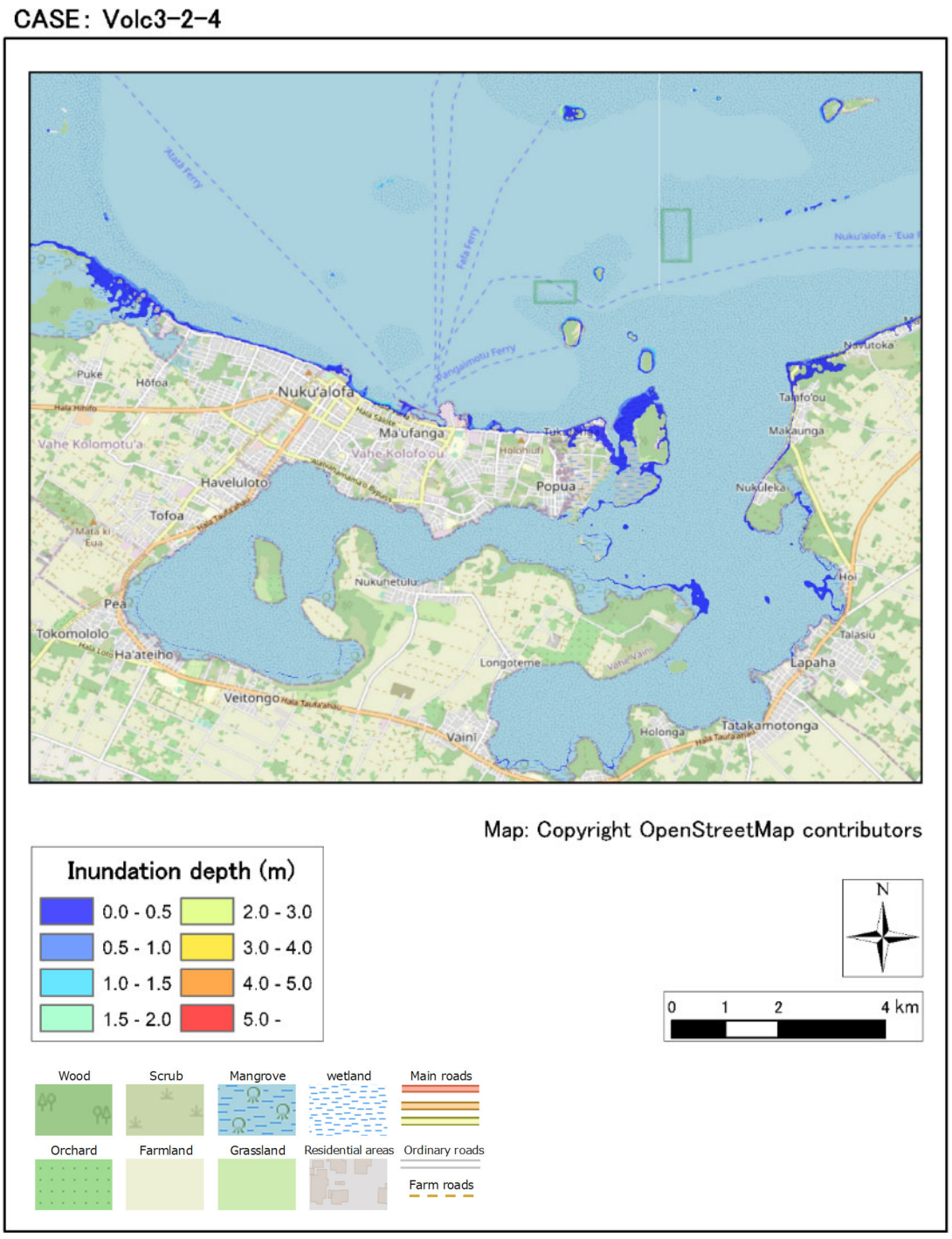
Source: JICA Study Team

Figure 2.6.212 Max inundation depth distribution (Unnamed1, H=60m Raised Seawall M.S.L.+3.0m)



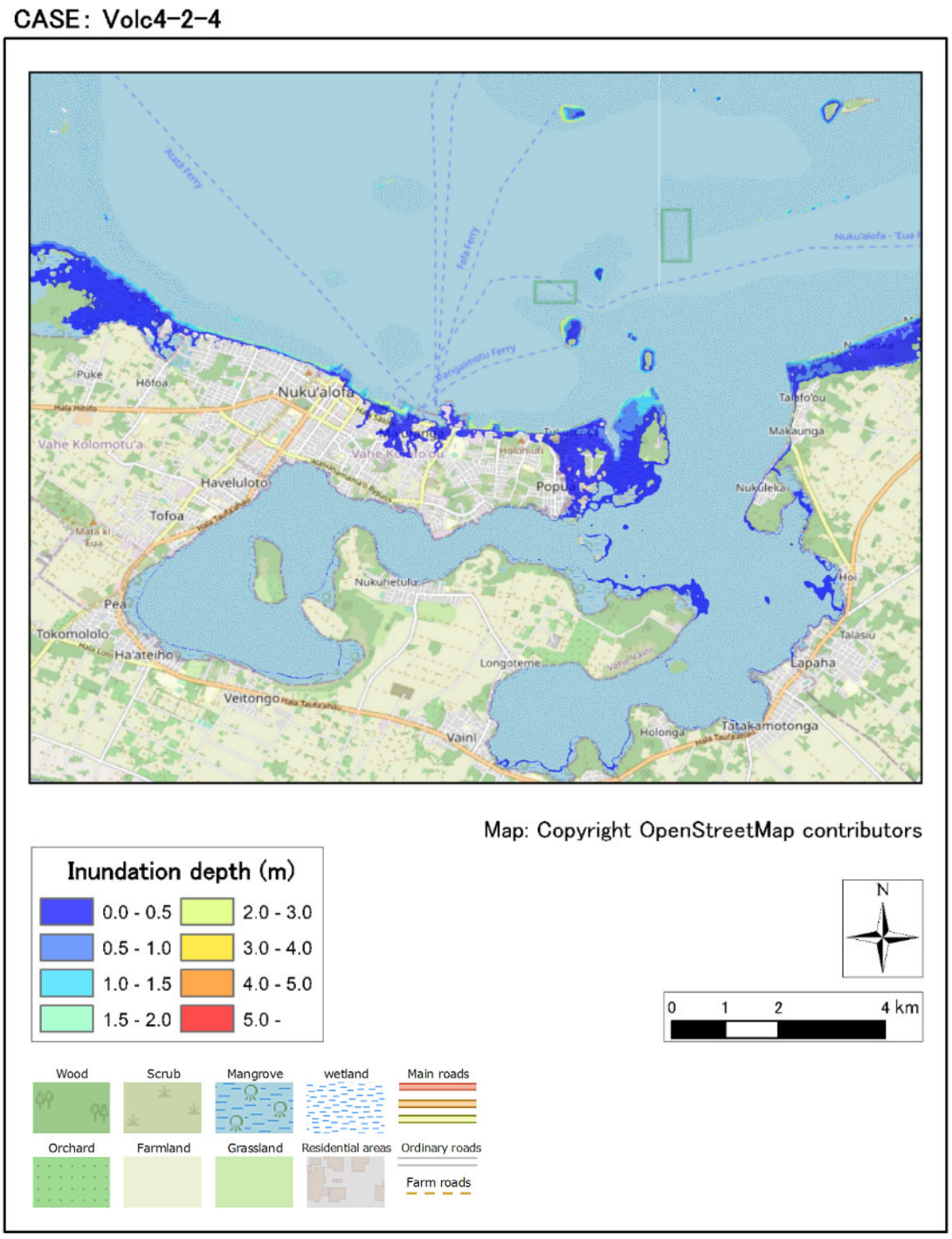
Source: JICA Study Team

Figure 2.6.213 Max inundation depth distribution (HomeReef, H=60m Raised Seawall M.S.L.+3.0m)



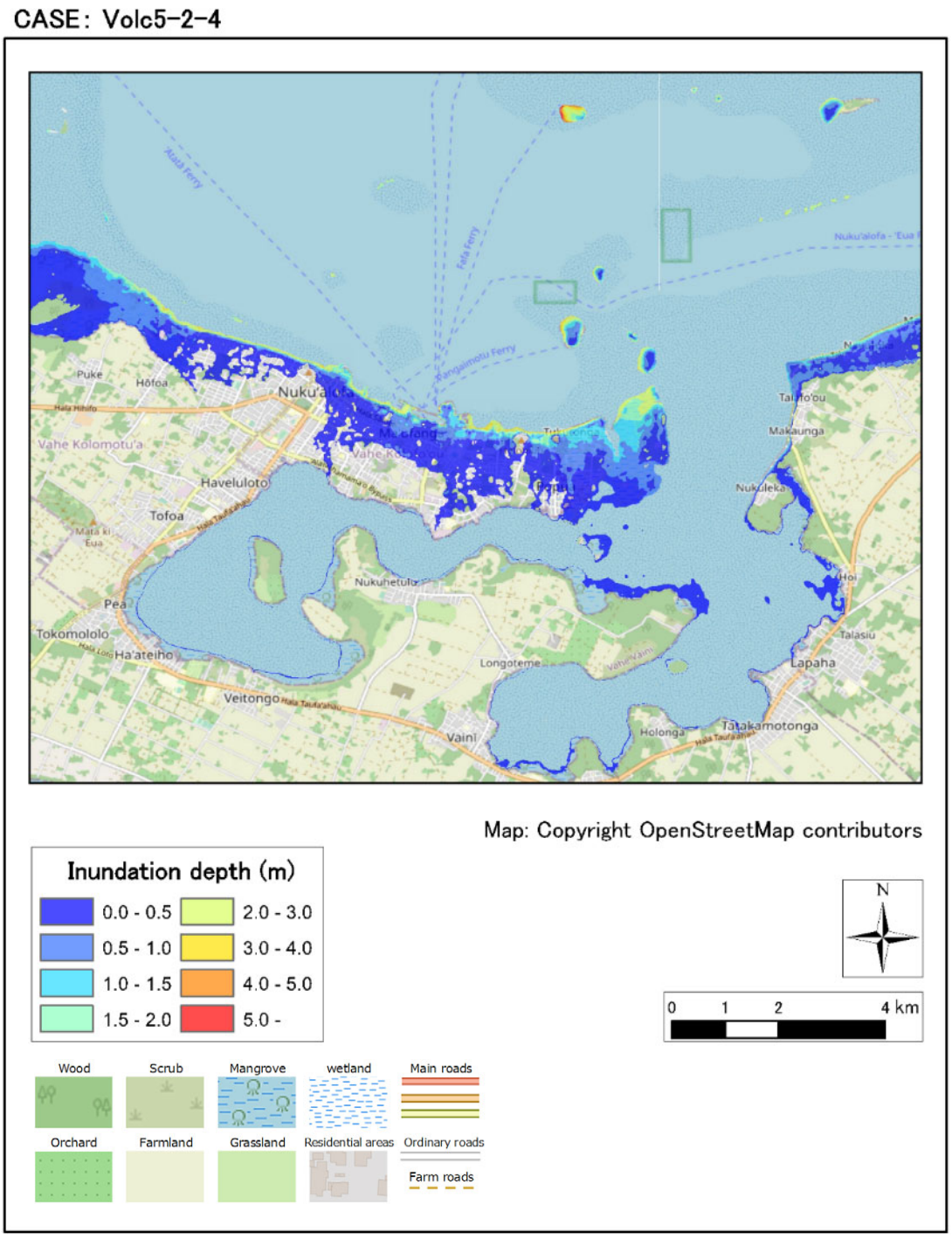
Source: JICA Study Team

Figure 2.6.214 Max inundation depth distribution (Lateiki, H=60m Raised Seawall M.S.L.+3.0m)



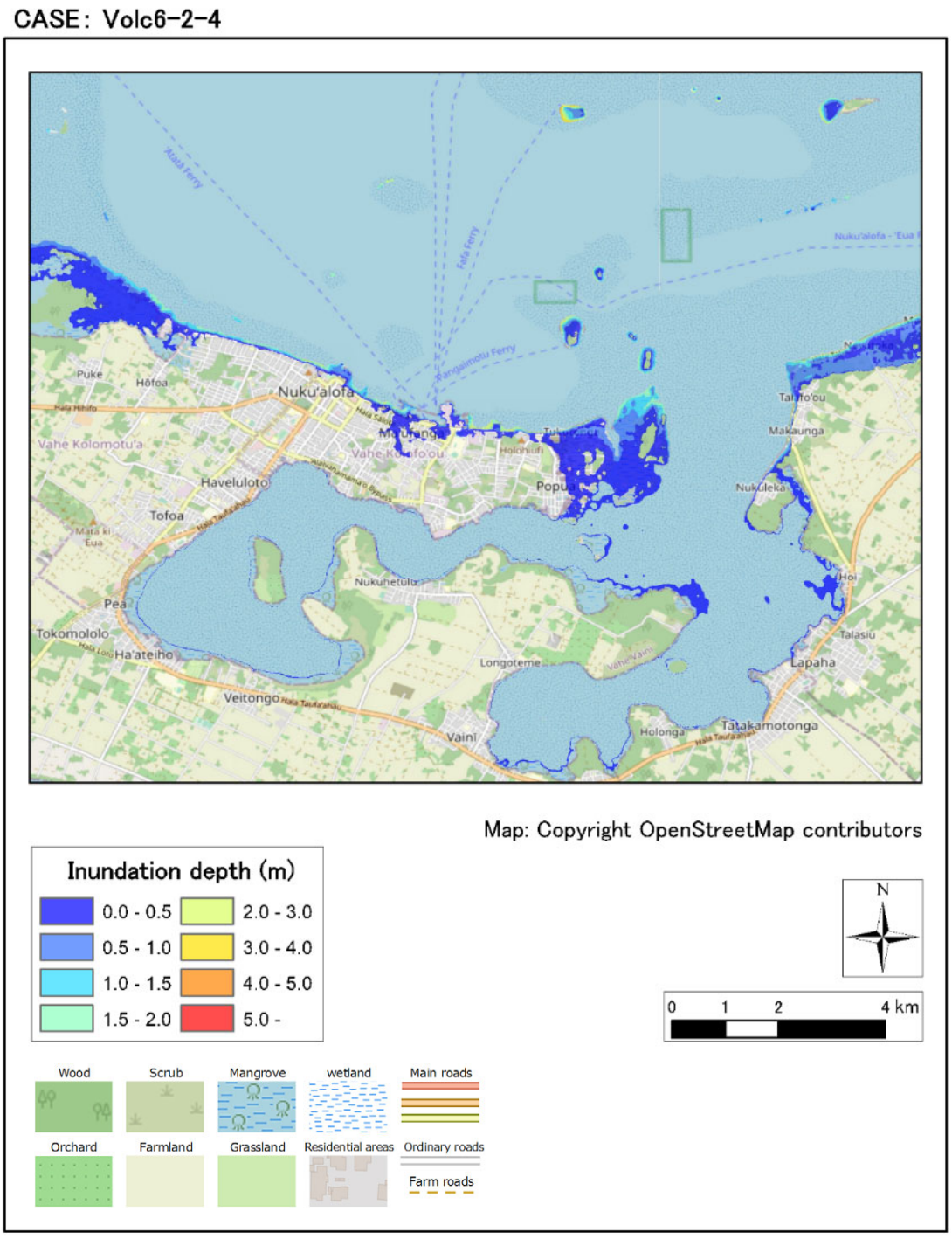
Source: JICA Study Team

Figure 2.6.215 Max inundation depth distribution (Fonuafo'ou, H=60m Raised Seawall M.S.L.+3.0m)



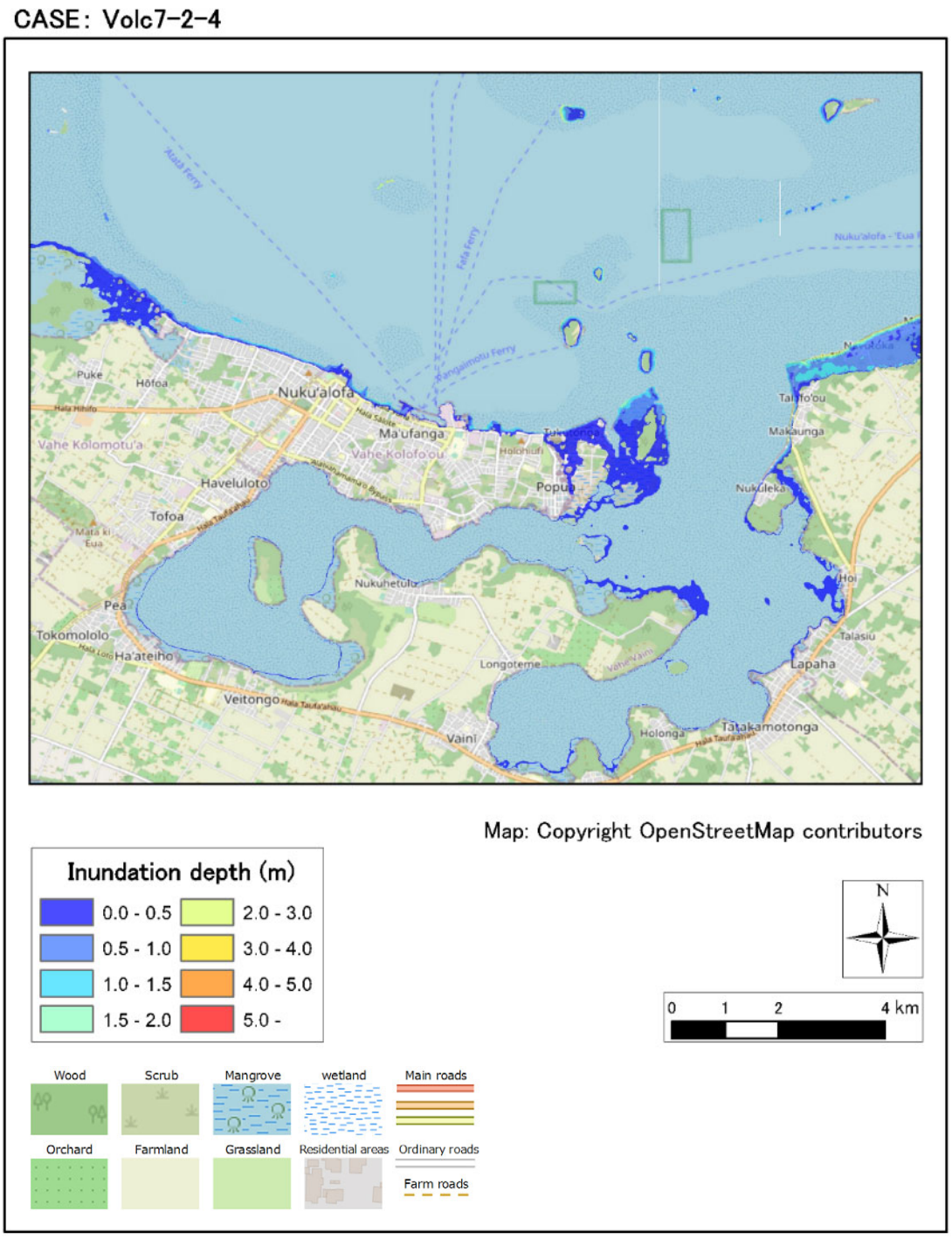
Source: JICA Study Team

Figure 2.6.216 Max inundation depth distribution (Unamed2, H=60m Raised Seawall M.S.L.+3.0m)



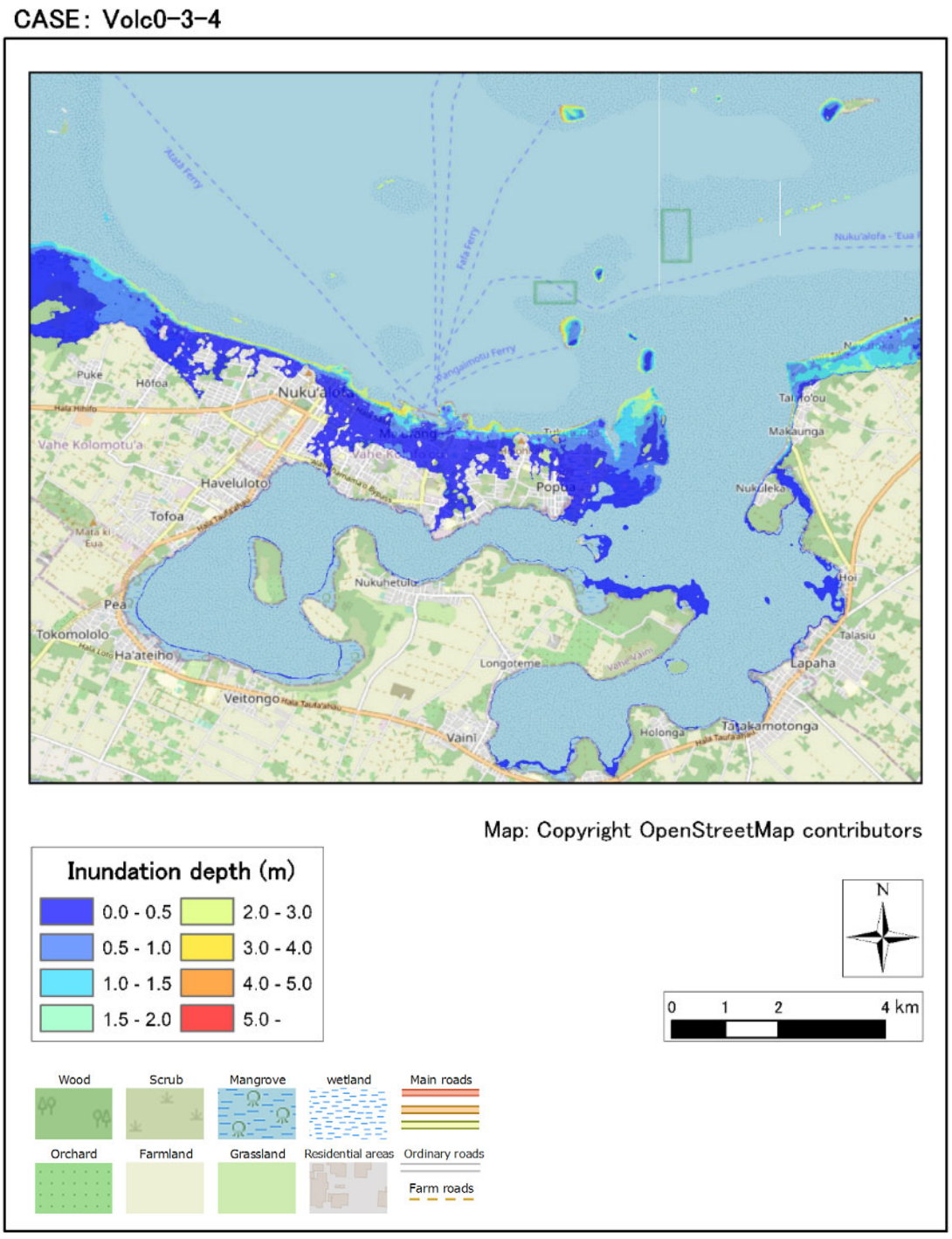
Source: JICA Study Team

Figure 2.6.217 Max inundation depth distribution (Unamed3, H=60m Raised Seawall M.S.L.+3.0m)



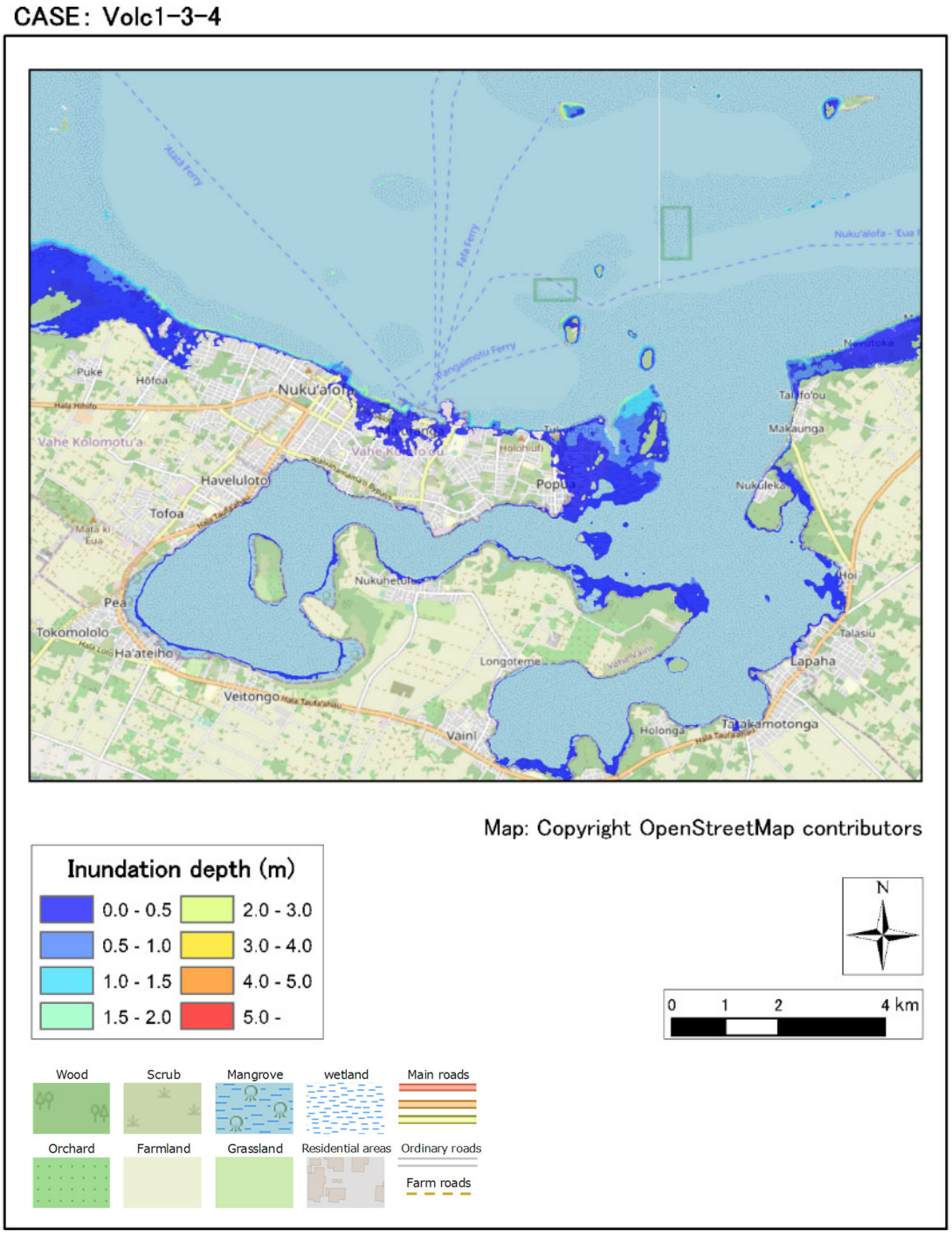
Source: JICA Study Team

Figure 2.6.218 Max inundation depth distribution (Unamed4, H=60m Raised Seawall M.S.L.+3.0m)



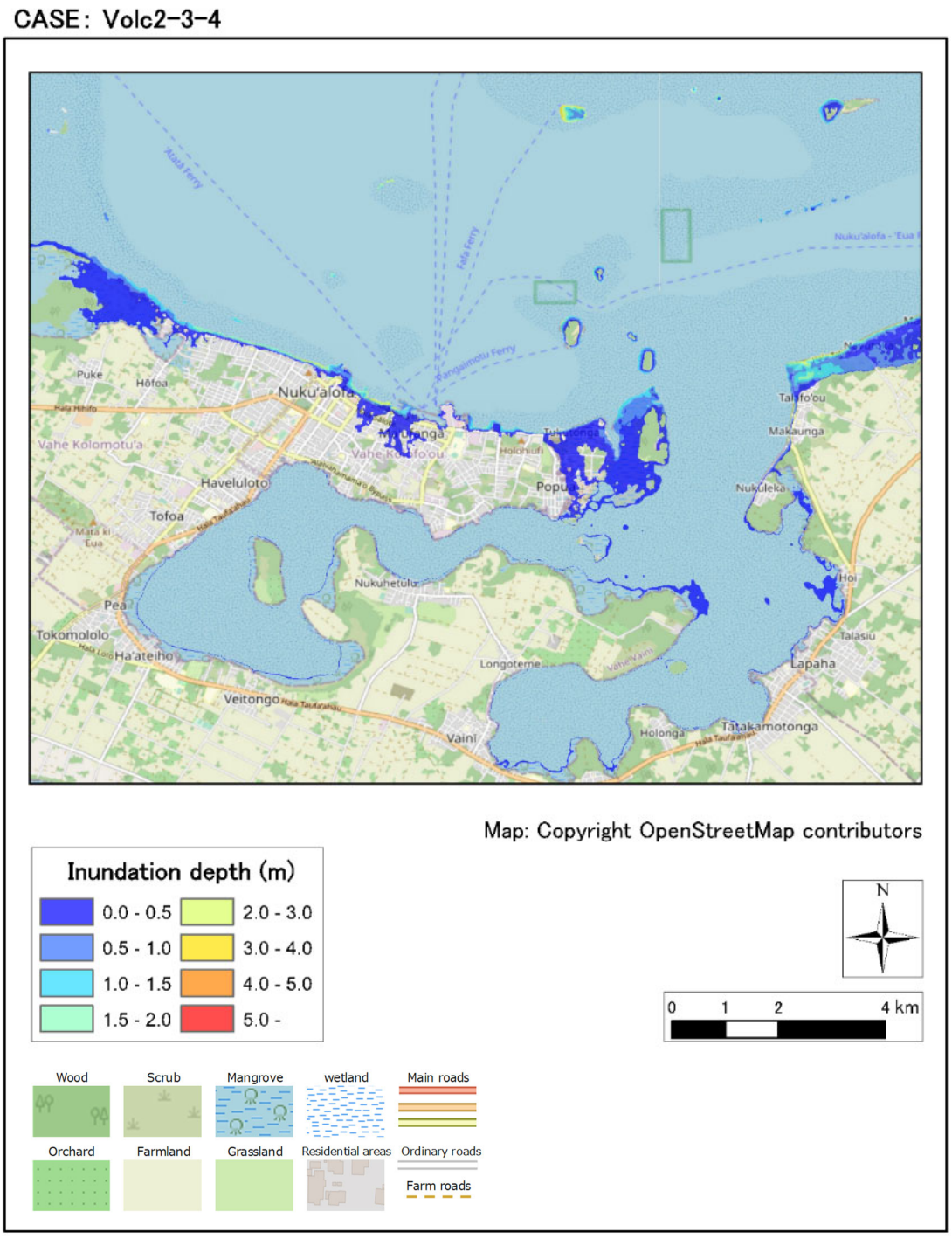
Source: JICA Study Team

Figure 2.6.219 Max inundation depth distribution (Hunga Tonga-Hunga Ha'pai, H=90m Raised Seawall M.S.L.+3.0m)



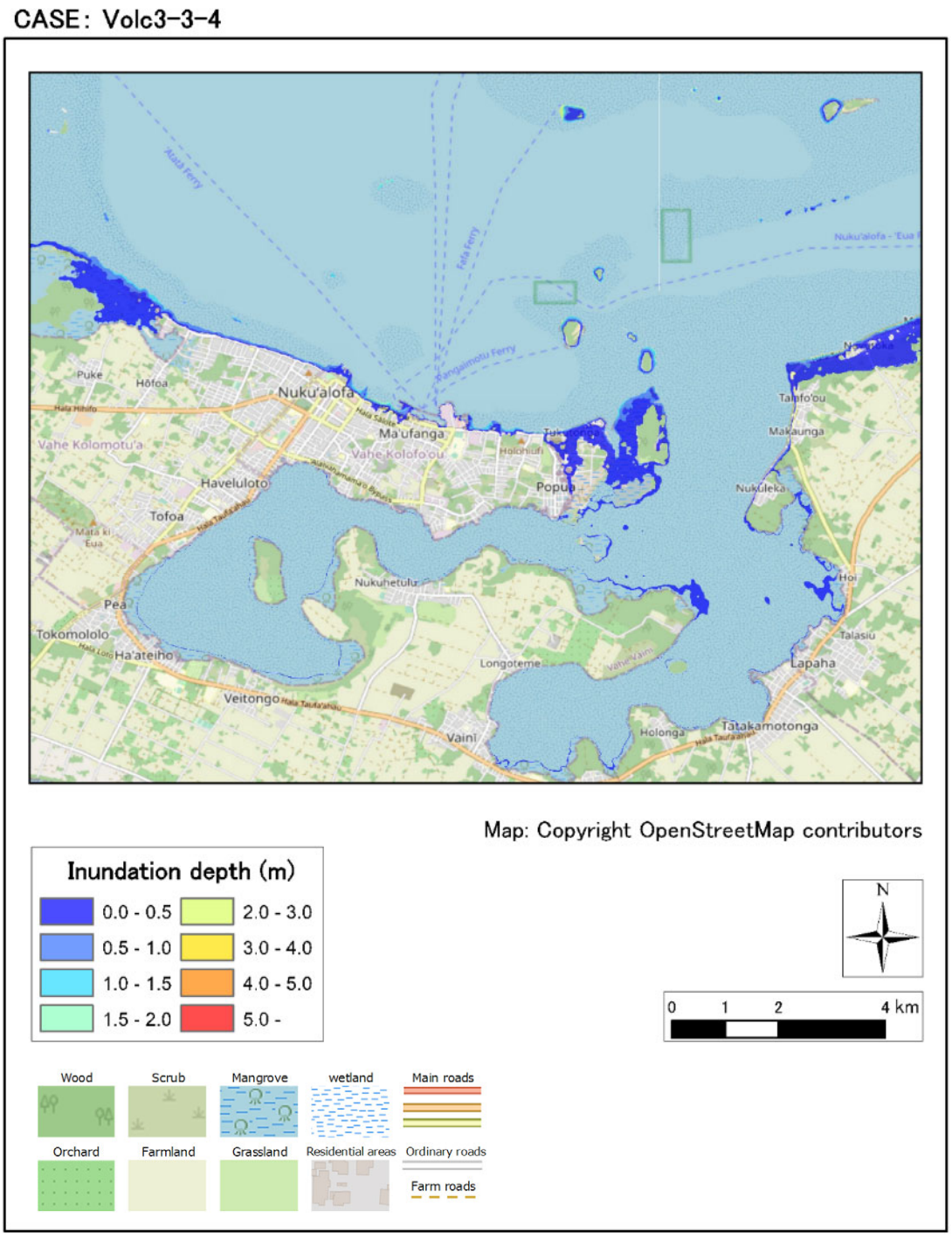
Source: JICA Study Team

Figure 2.6.220 Max inundation depth distribution (Unnamed1, H=90m Raised Seawall M.S.L.+3.0m)



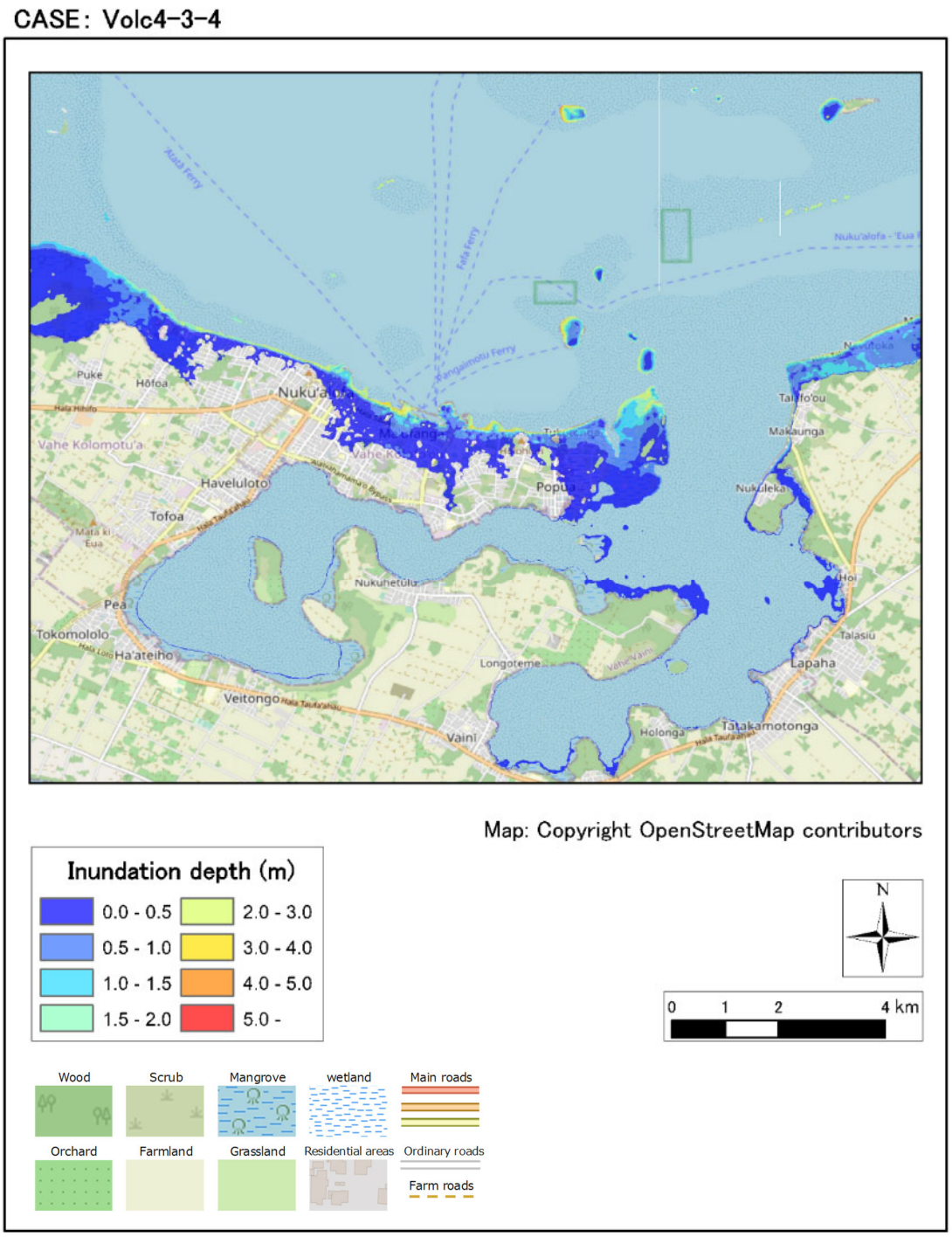
Source: JICA Study Team

Figure 2.6.221 Max inundation depth distribution (HomeReef, H=90m Raised Seawall M.S.L.+3.0m)



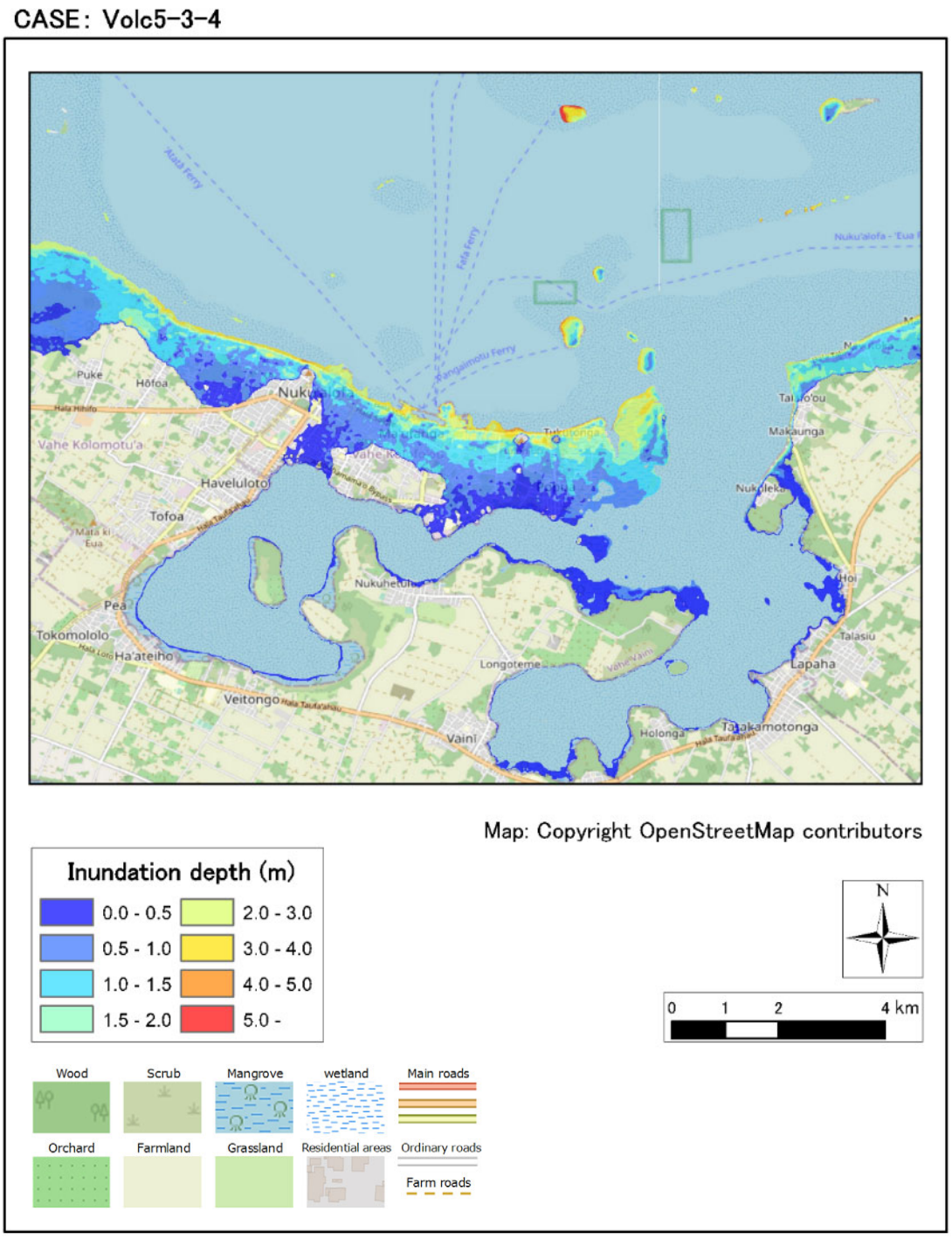
Source: JICA Study Team

Figure 2.6.222 Max inundation depth distribution (Lateiki, H=90m Raised Seawall M.S.L.+3.0m)



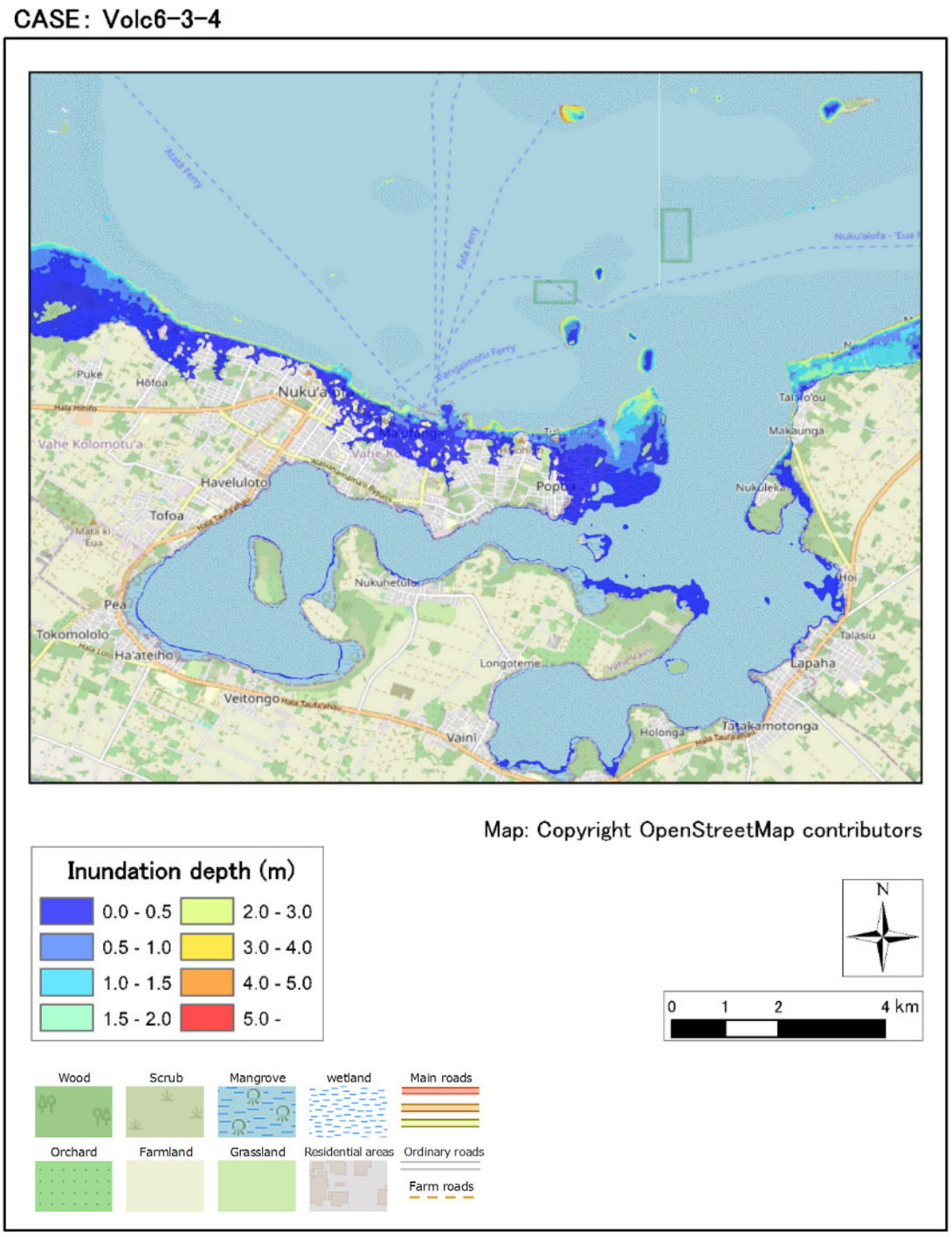
Source: JICA Study Team

Figure 2.6.223 Max inundation depth distribution (Fonuafo'ou, H=90m Raised Seawall M.S.L.+3.0m)



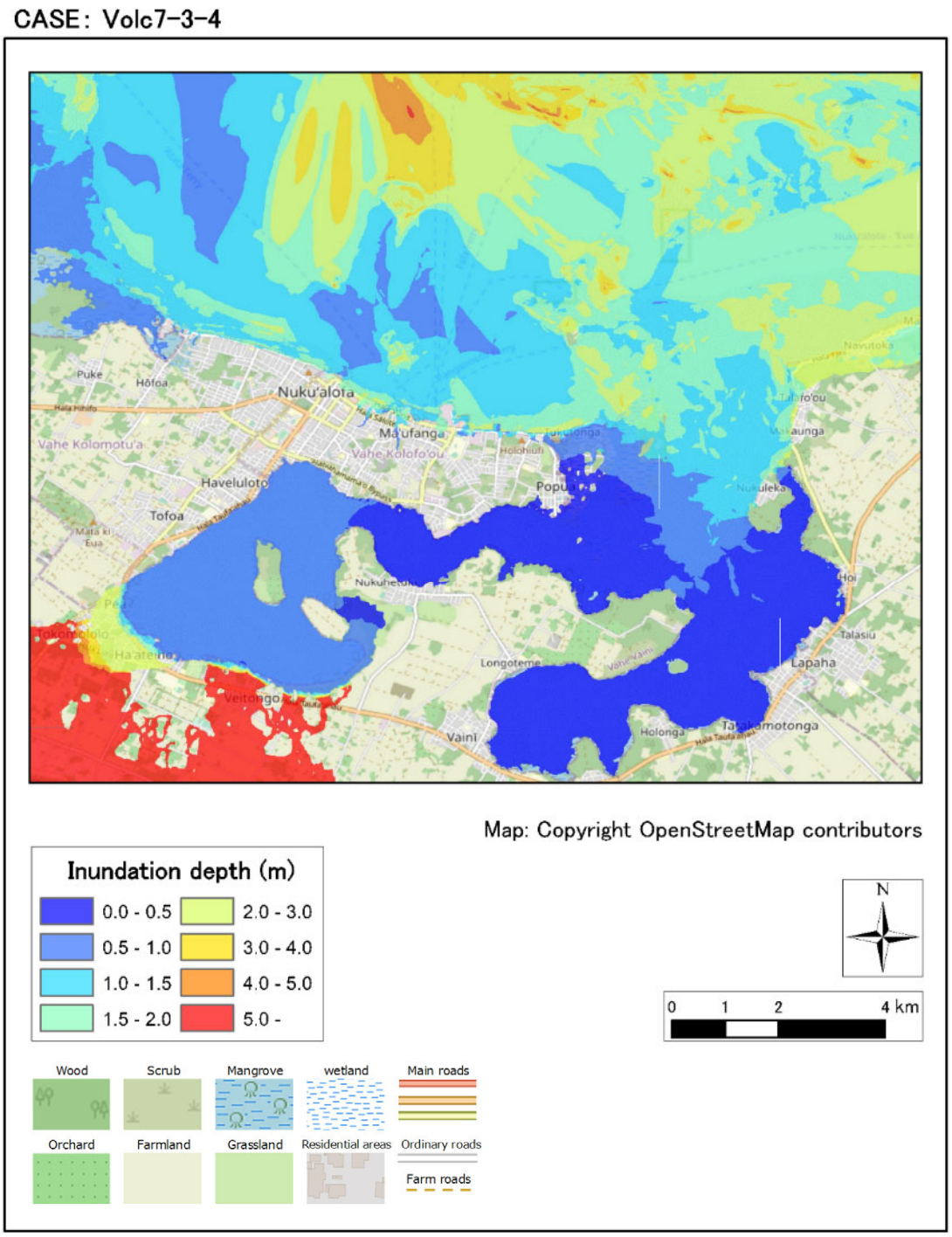
Source: JICA Study Team

Figure 2.6.224 Max inundation depth distribution (Unamed2, H=90m Raised Seawall M.S.L.+3.0m)



Source: JICA Study Team

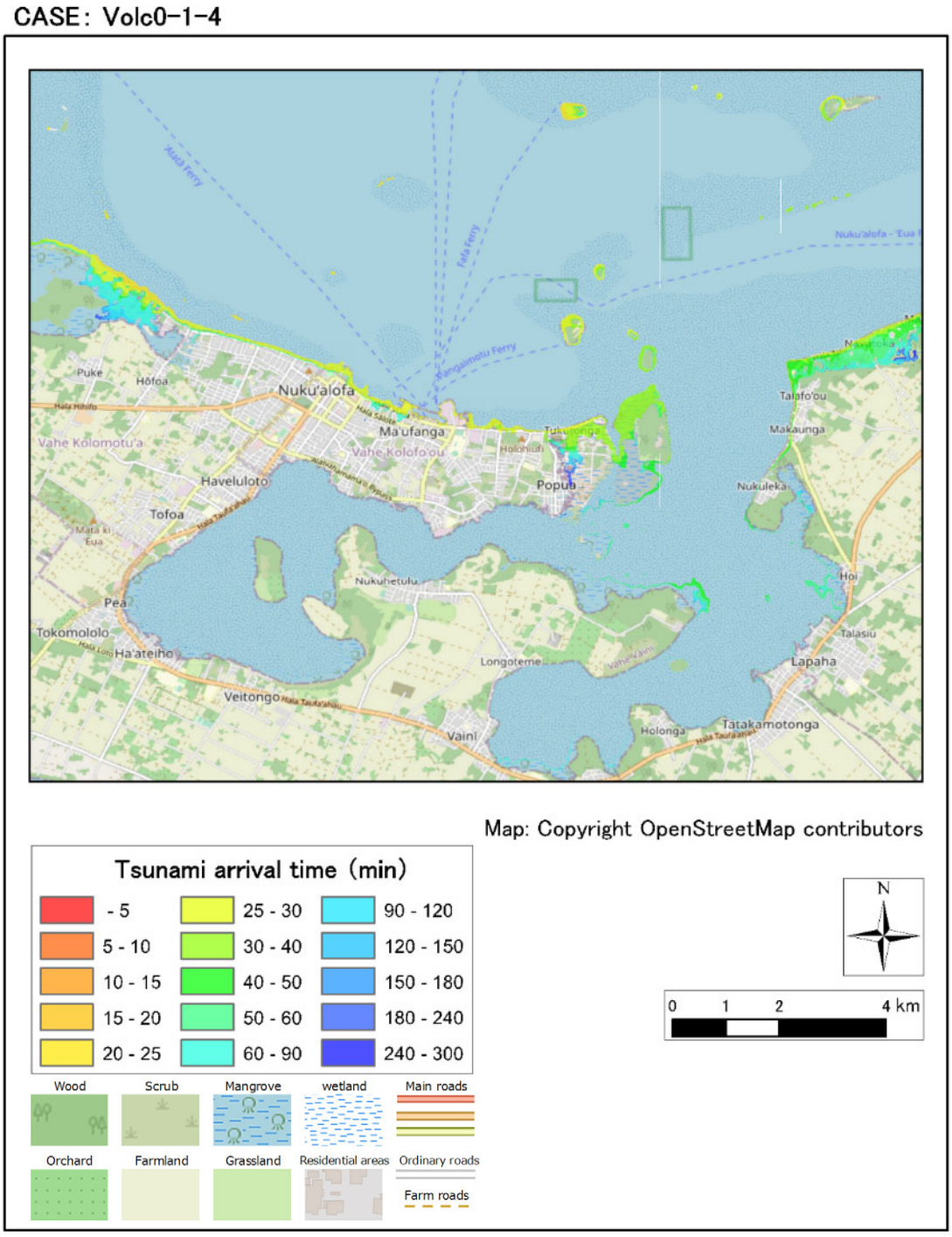
Figure 2.6.225 Max inundation depth distribution (Unamed3, H=90m Raised Seawall M.S.L.+3.0m)



Source: JICA Study Team

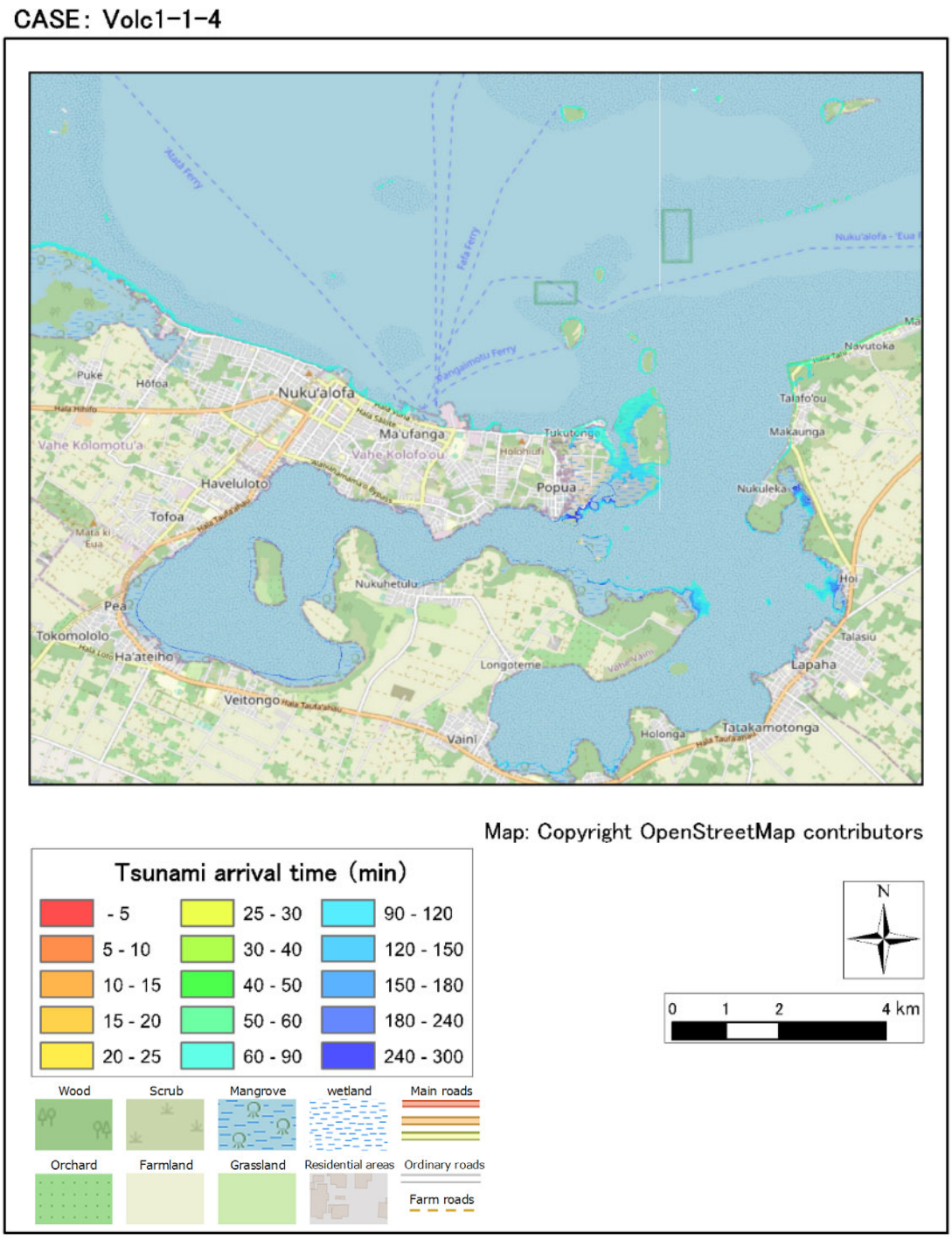
Figure 2.6.226 Max inundation depth distribution (Unamed4, H=90m Raised Seawall M.S.L.+3.0m)

c. Tsunami Arraival Time Distribution



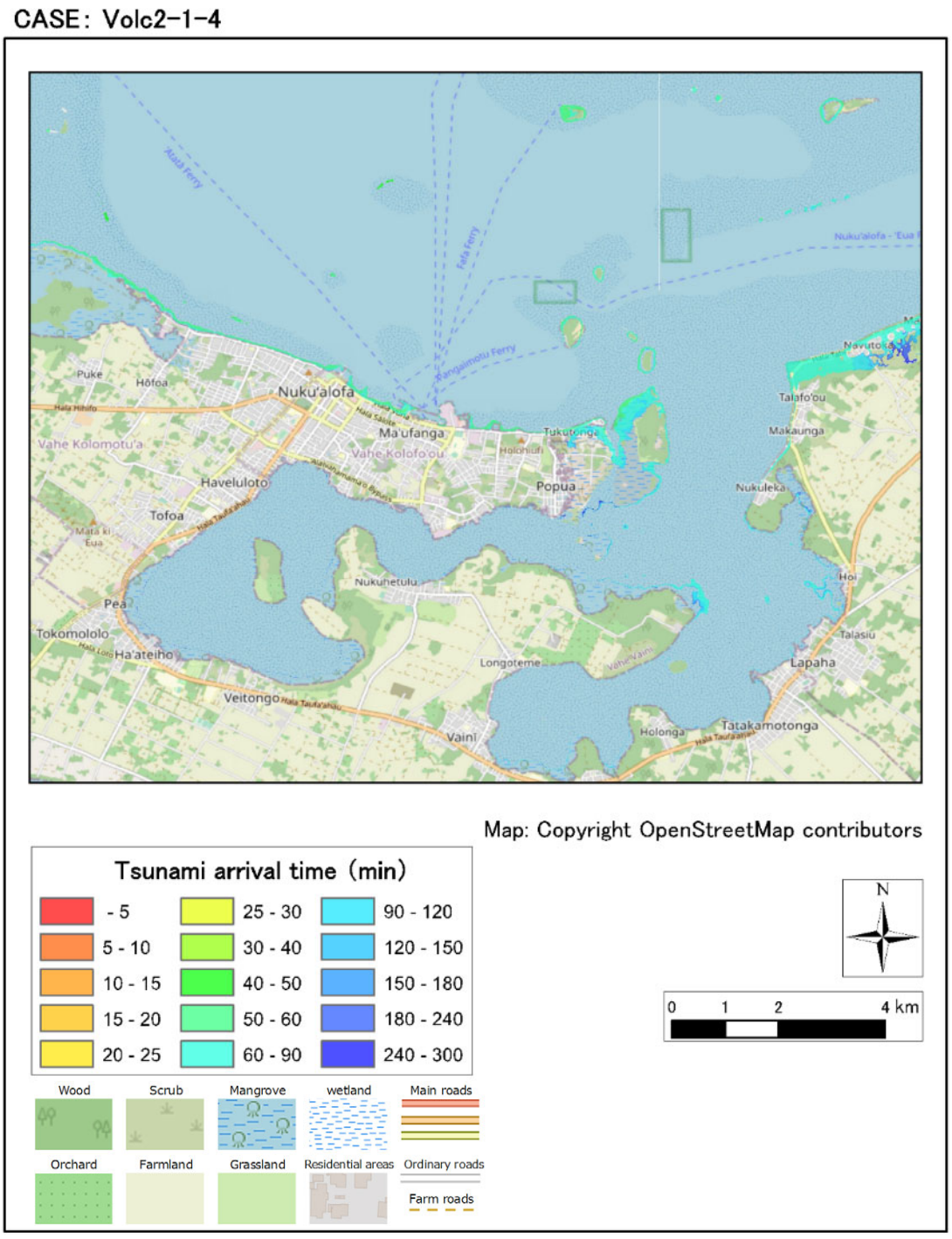
Source: JICA Study Team

Figure 2.6.227 Tsunami Arraival Time Distribution (Hunga Tonga-Hunga Ha'pai, H=30m Raised Seawall M.S.L.+3.0m)



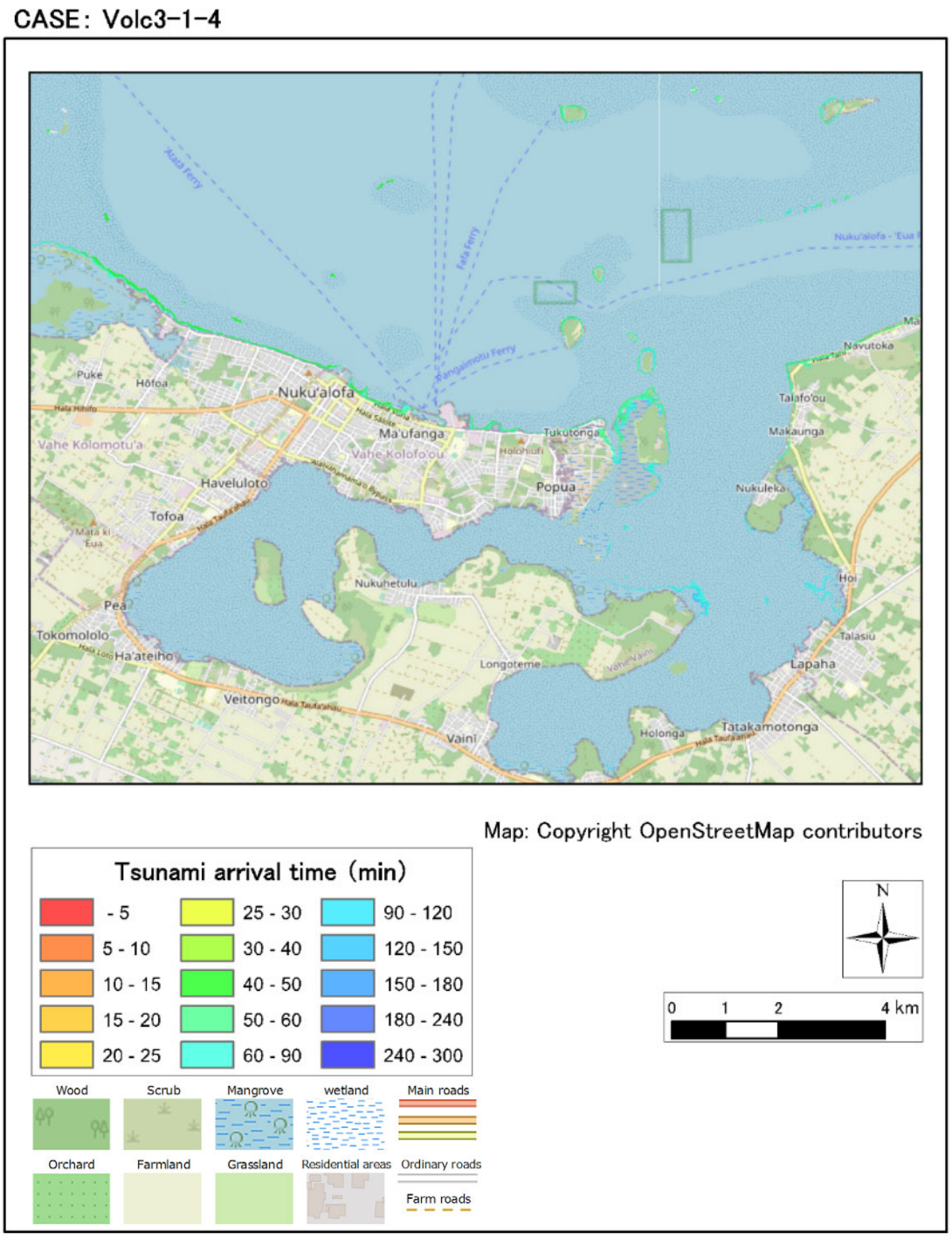
Source: JICA Study Team

Figure 2.6.228 Tsunami Arraival Time Distribution (Unnamed1, H=30m Raised Seawall M.S.L.+3.0m)



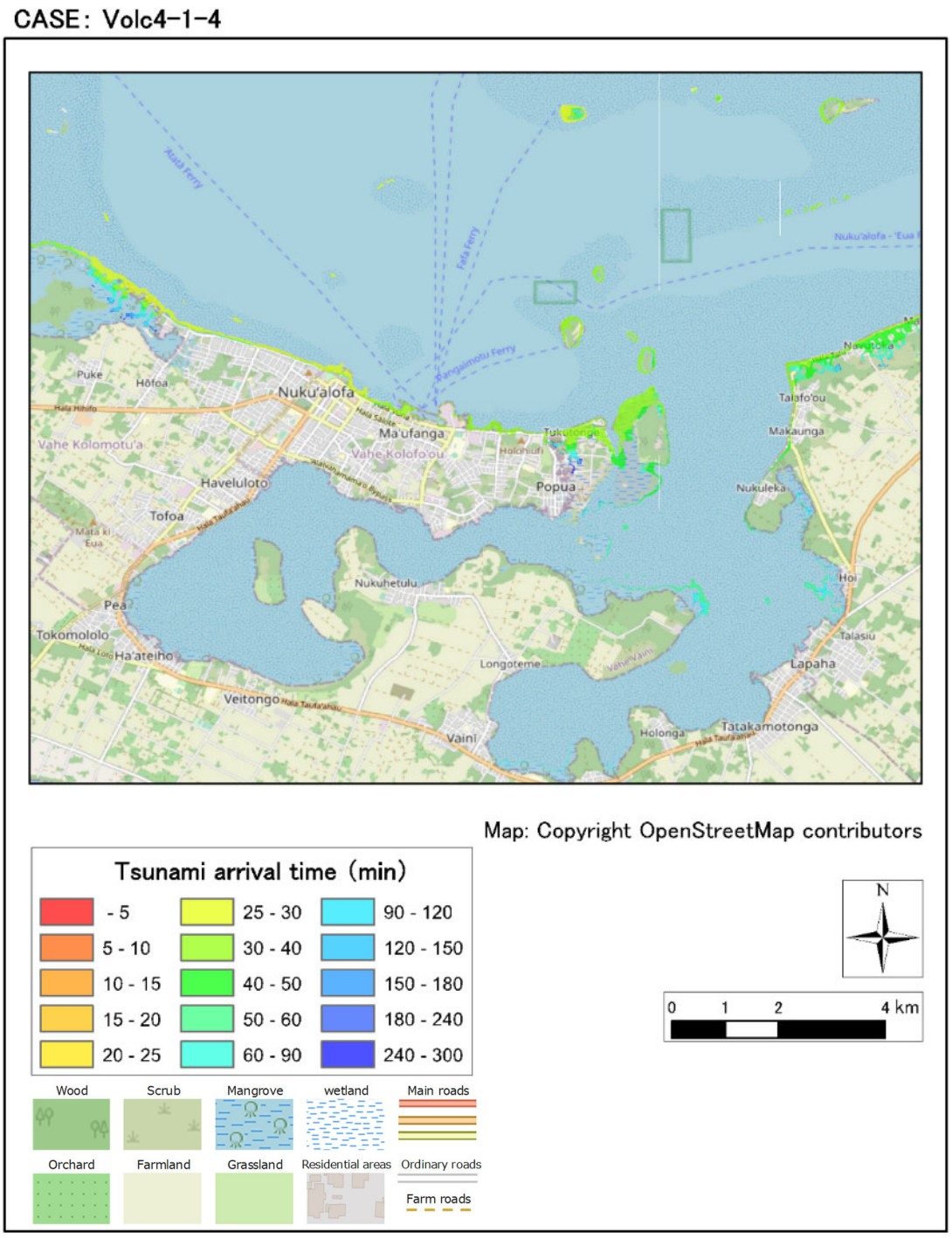
Source: JICA Study Team

Figure 2.6.229 Tsunami Arraival Time Distribution (HomeReef, H=30m Raised Seawall M.S.L.+3.0m)



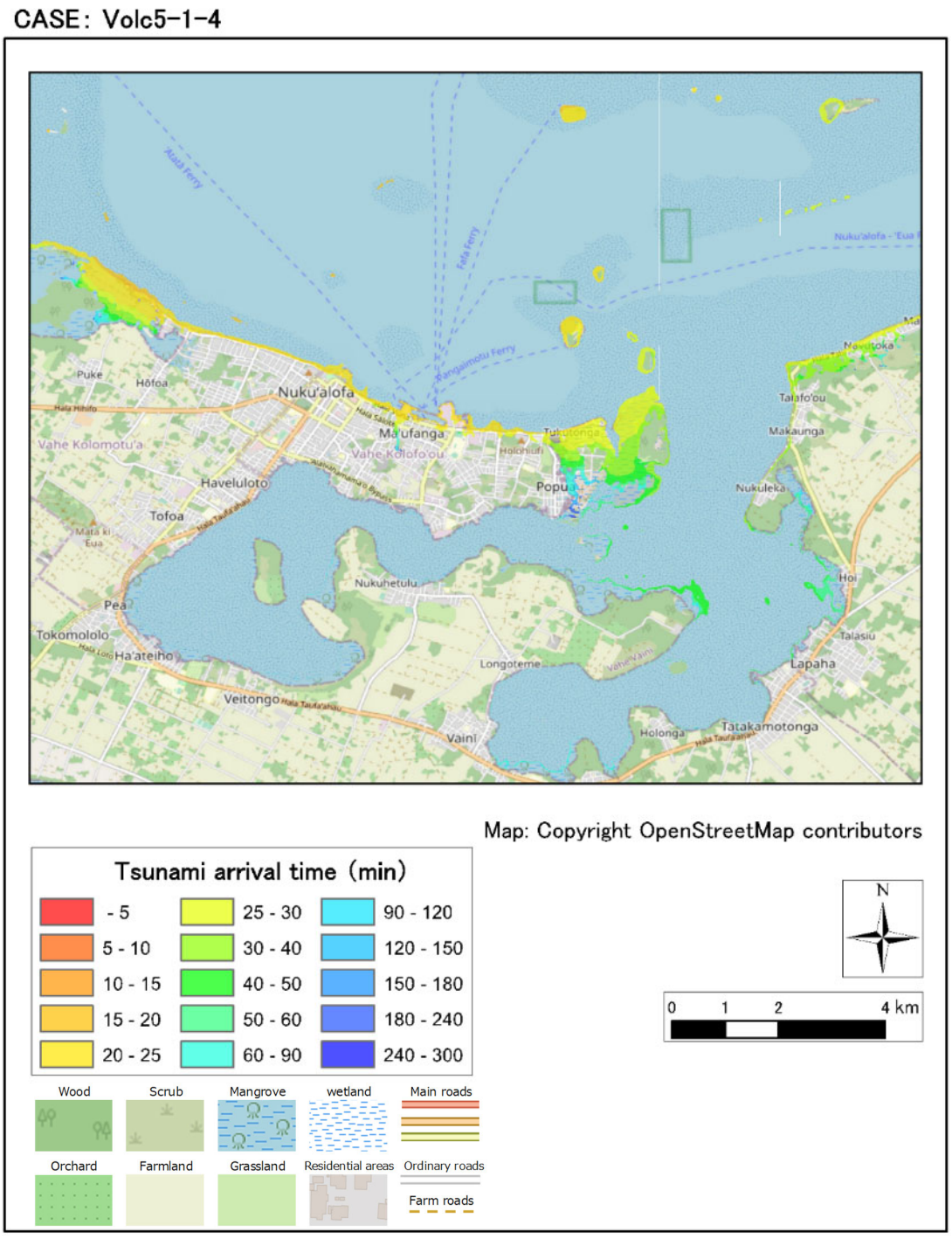
Source: JICA Study Team

Figure 2.6.230 Tsunami Arraival Time Distribution (Lateiki, H=30m Raised Seawall M.S.L.+3.0m)



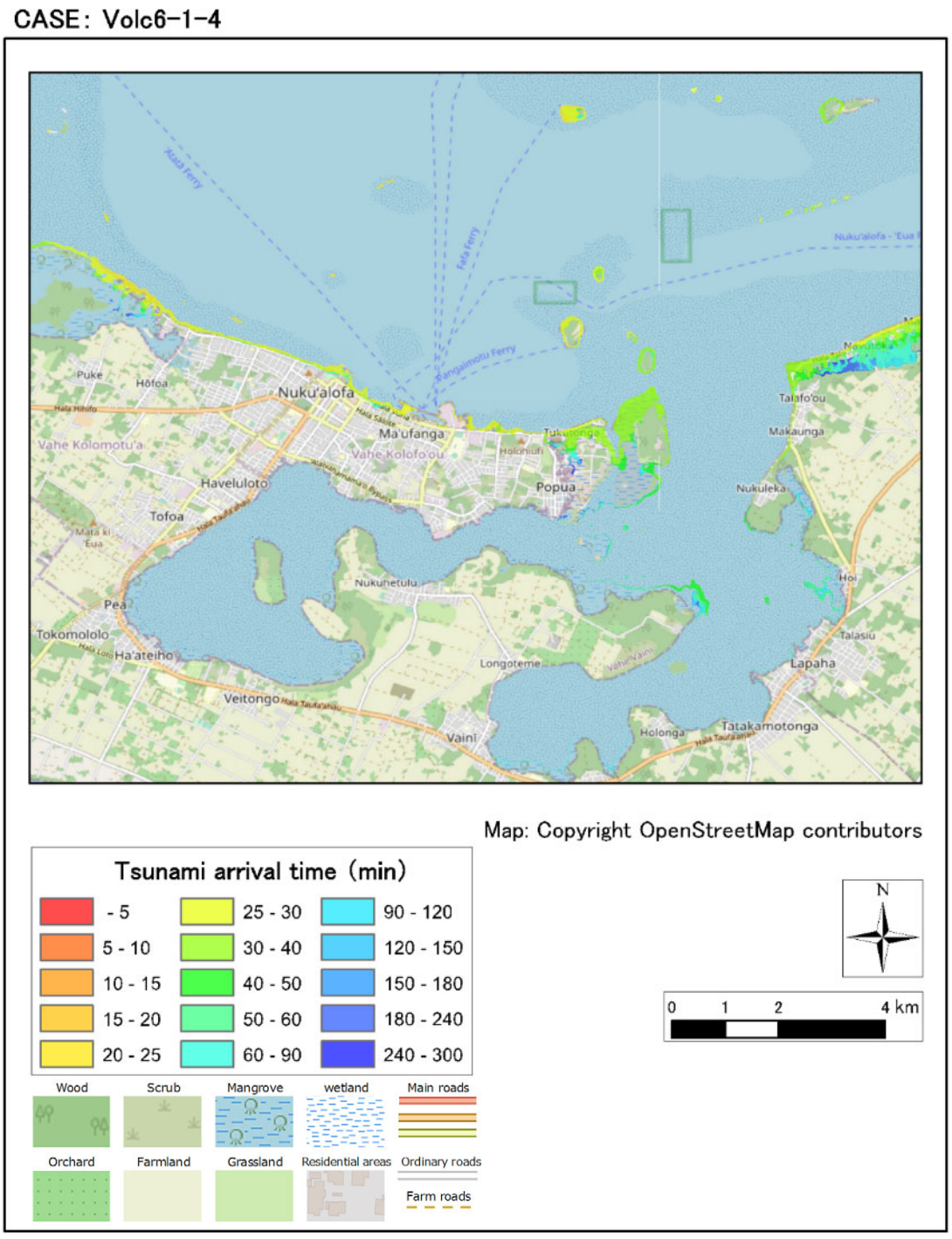
Source: JICA Study Team

Figure 2.6.231 Tsunami Arraival Time Distribution (Fonuafo'ou H=30m Raised Seawall M.S.L.+3.0m)



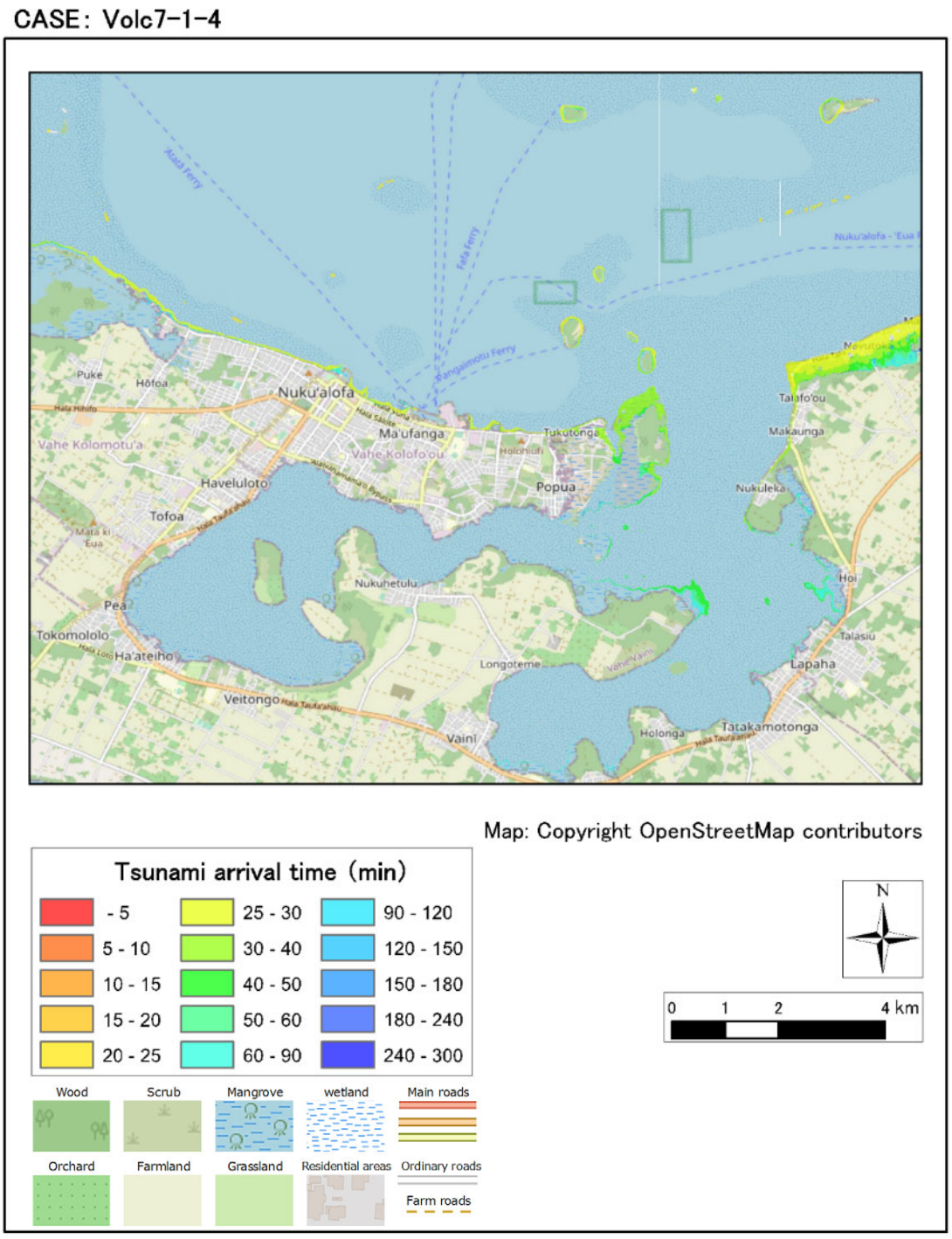
Source: JICA Study Team

Figure 2.6.232 Tsunami Arraival Time Distribution (Unamed2, H=30m Raised Seawall M.S.L.+3.0m)



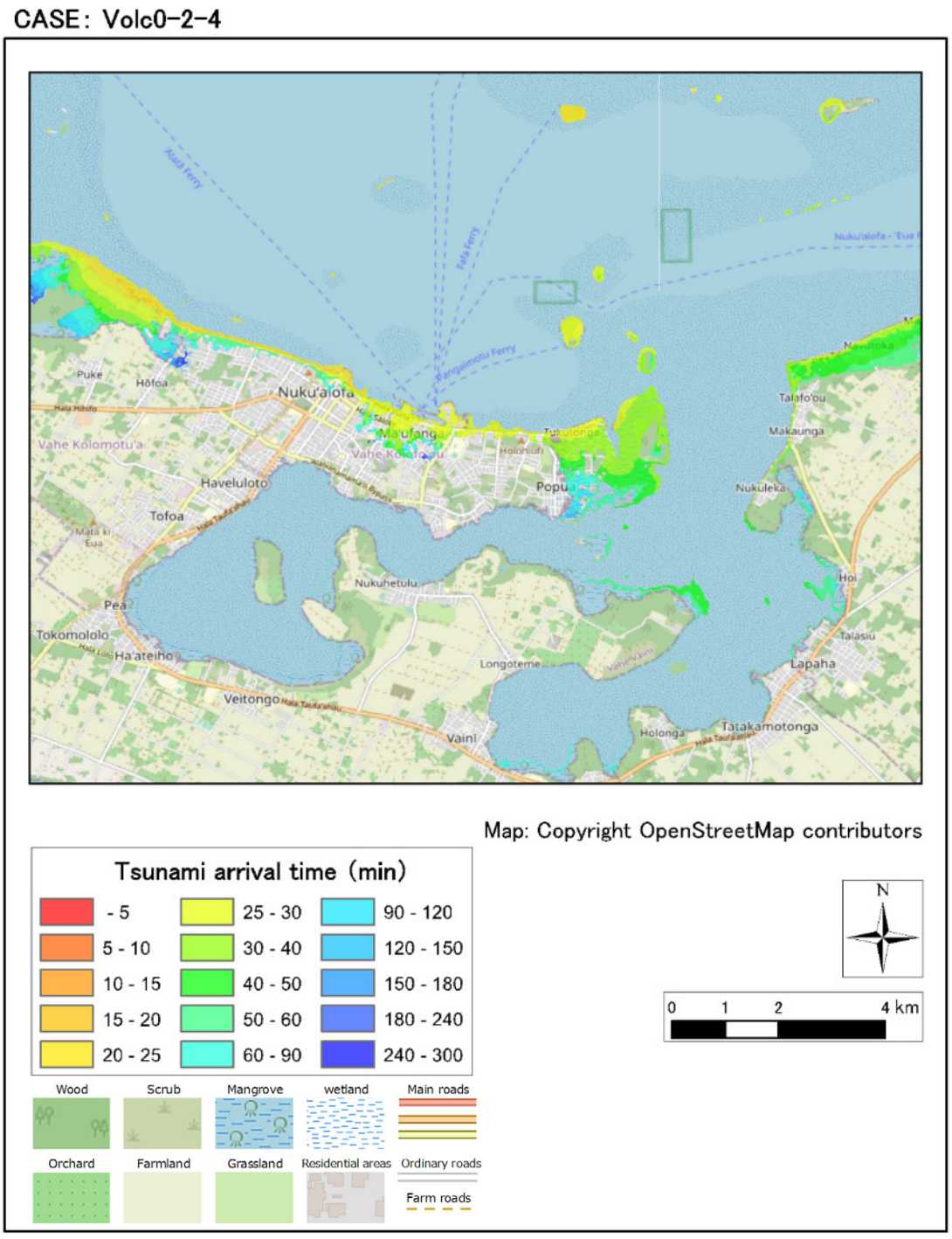
Source: JICA Study Team

Figure 2.6.233 Tsunami Arraival Time Distribution (Unamed3, H=30m Raised Seawall M.S.L.+3.0m)



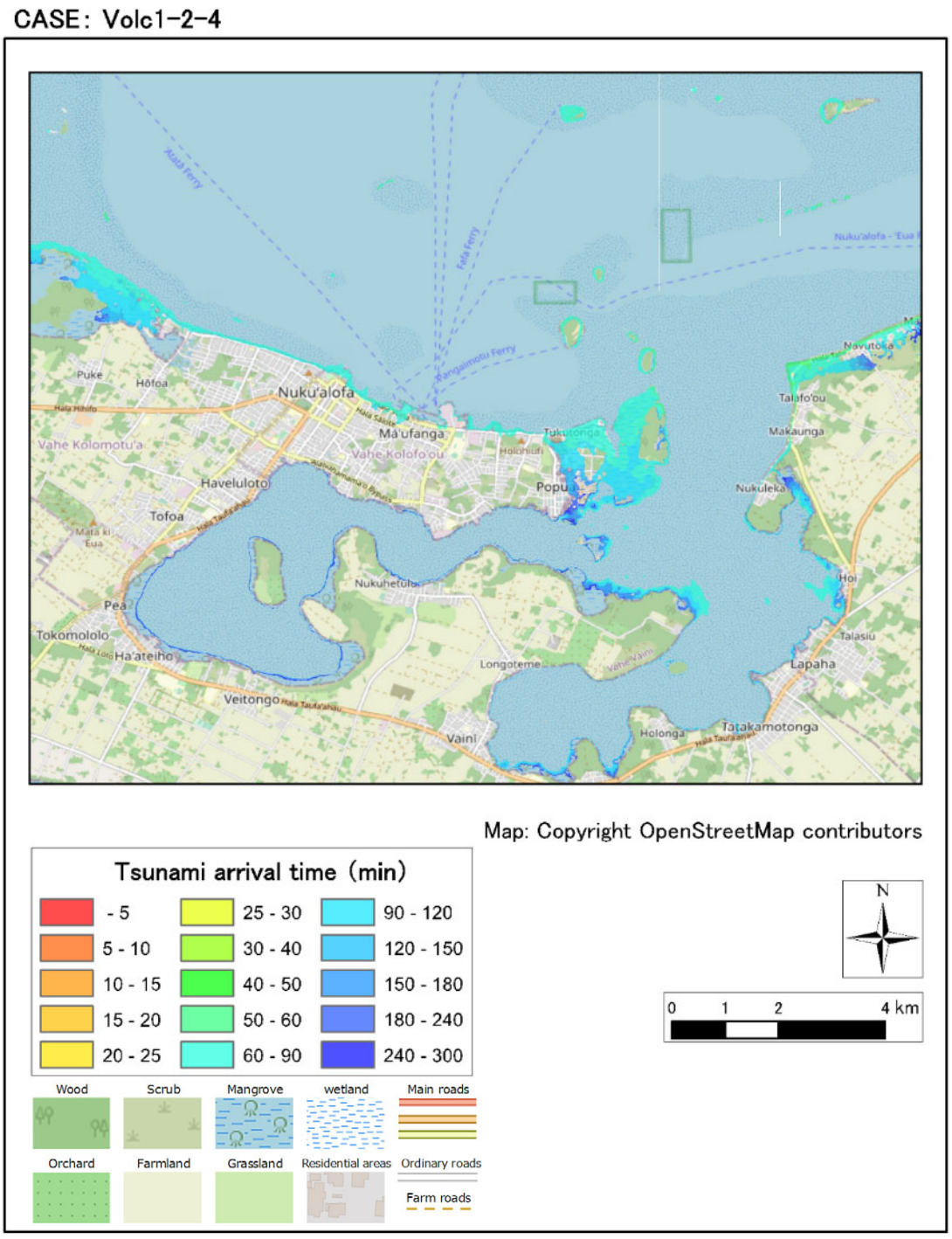
Source: JICA Study Team

Figure 2.6.234 Tsunami Arraival Time Distribution (Unamed4, H=30m Raised Seawall M.S.L.+3.0m)



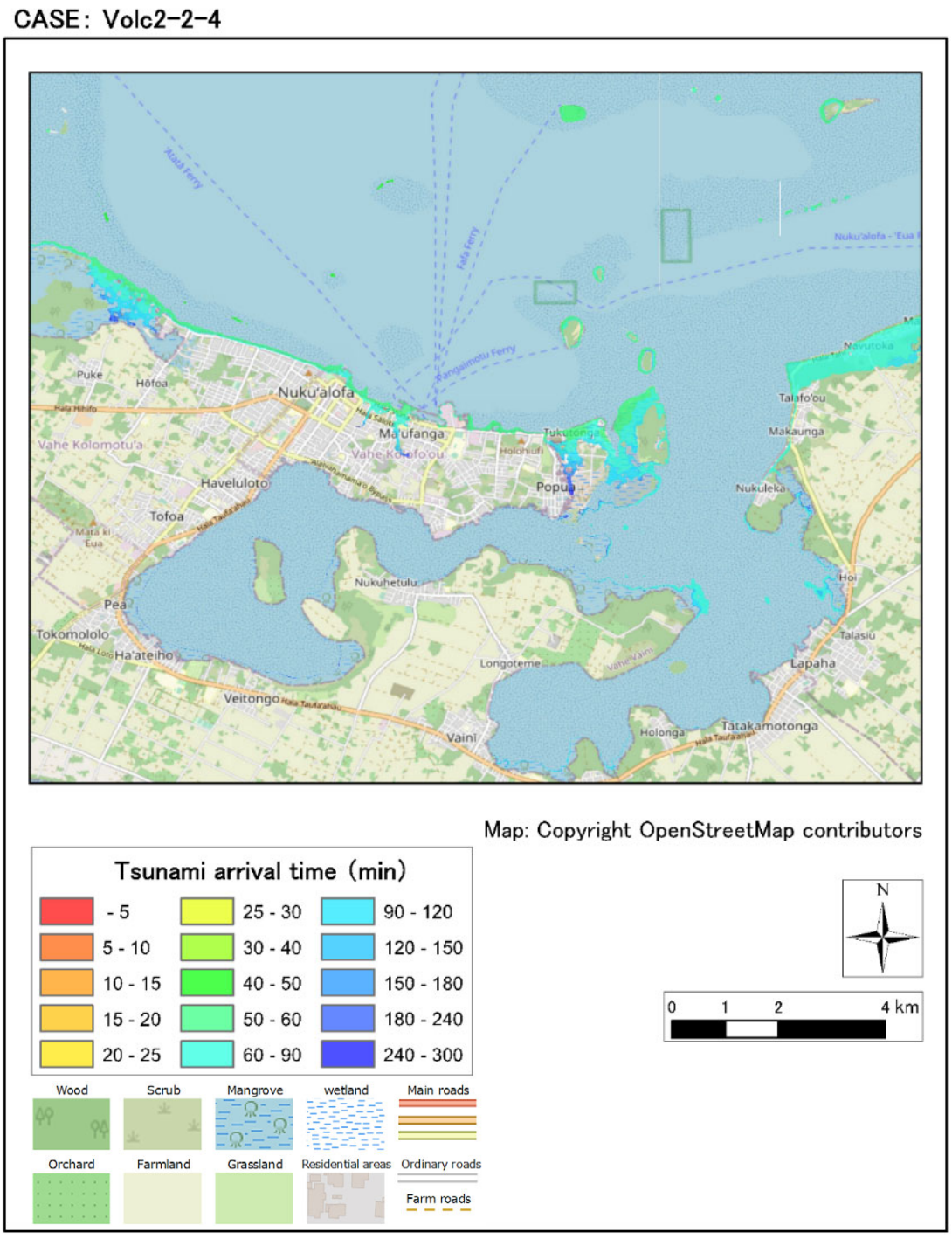
Source: JICA Study Team

Figure 2.6.235 Tsunami Arraival Time Distribution (Hunga Tonga-Hunga Ha'pai, H=60m Raised Seawall M.S.L.+3.0m)



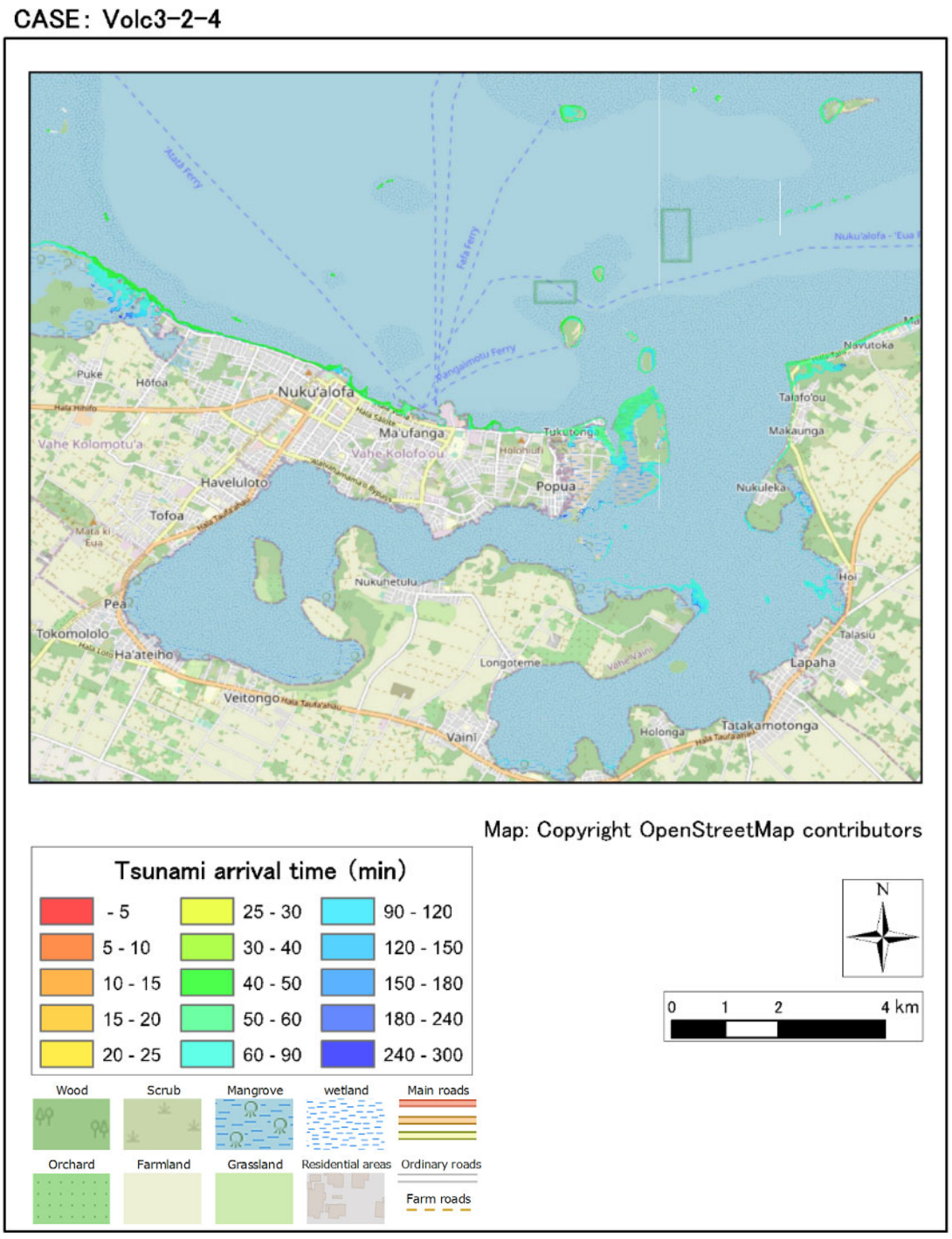
Source: JICA Study Team

Figure 2.6.236 Tsunami Arraival Time Distribution (Unnamed1, H=60m Raised Seawall M.S.L.+3.0m)



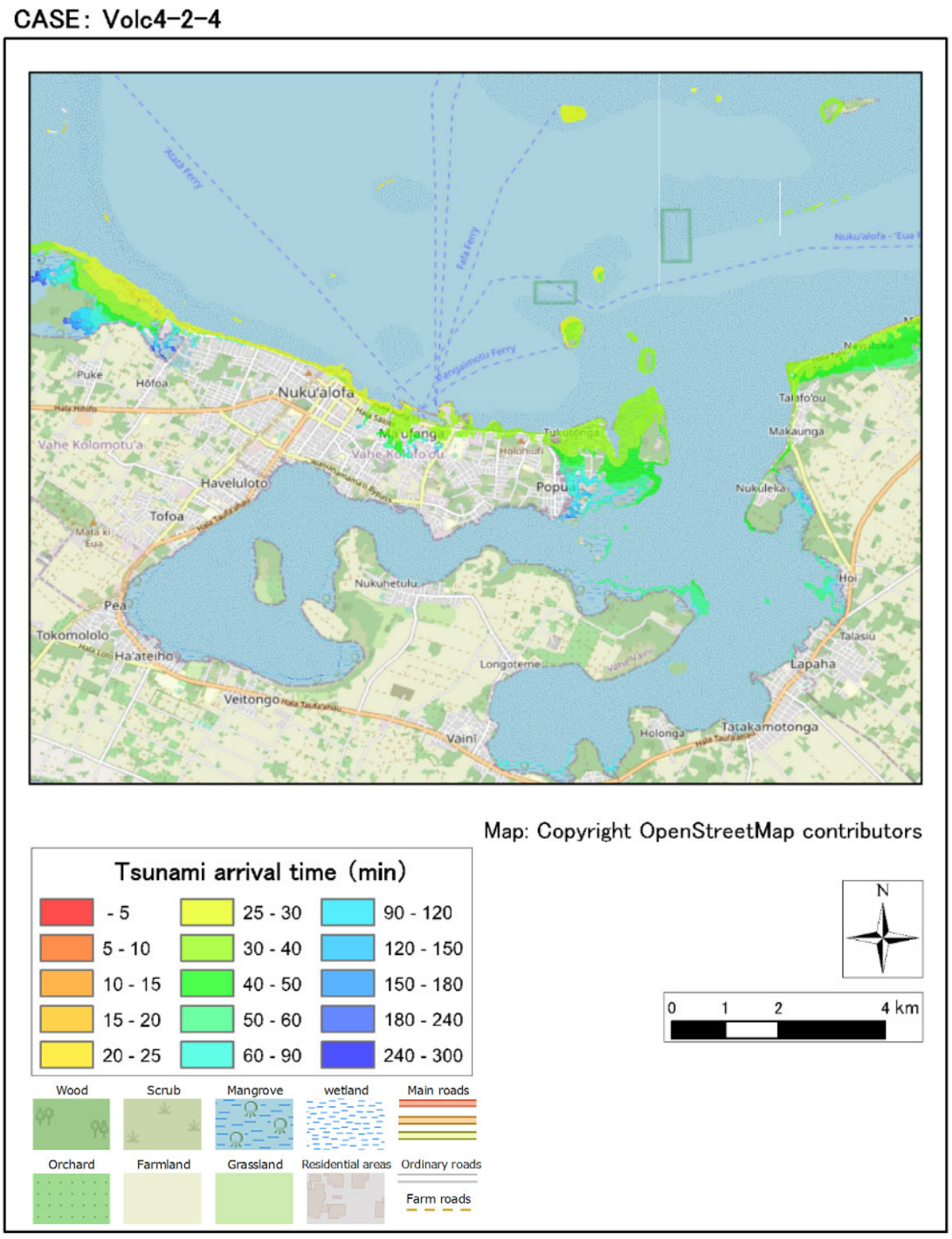
Source: JICA Study Team

Figure 2.6.237 Tsunami Arraival Time Distribution (HomeReef, H=60m Raised Seawall M.S.L.+3.0m)



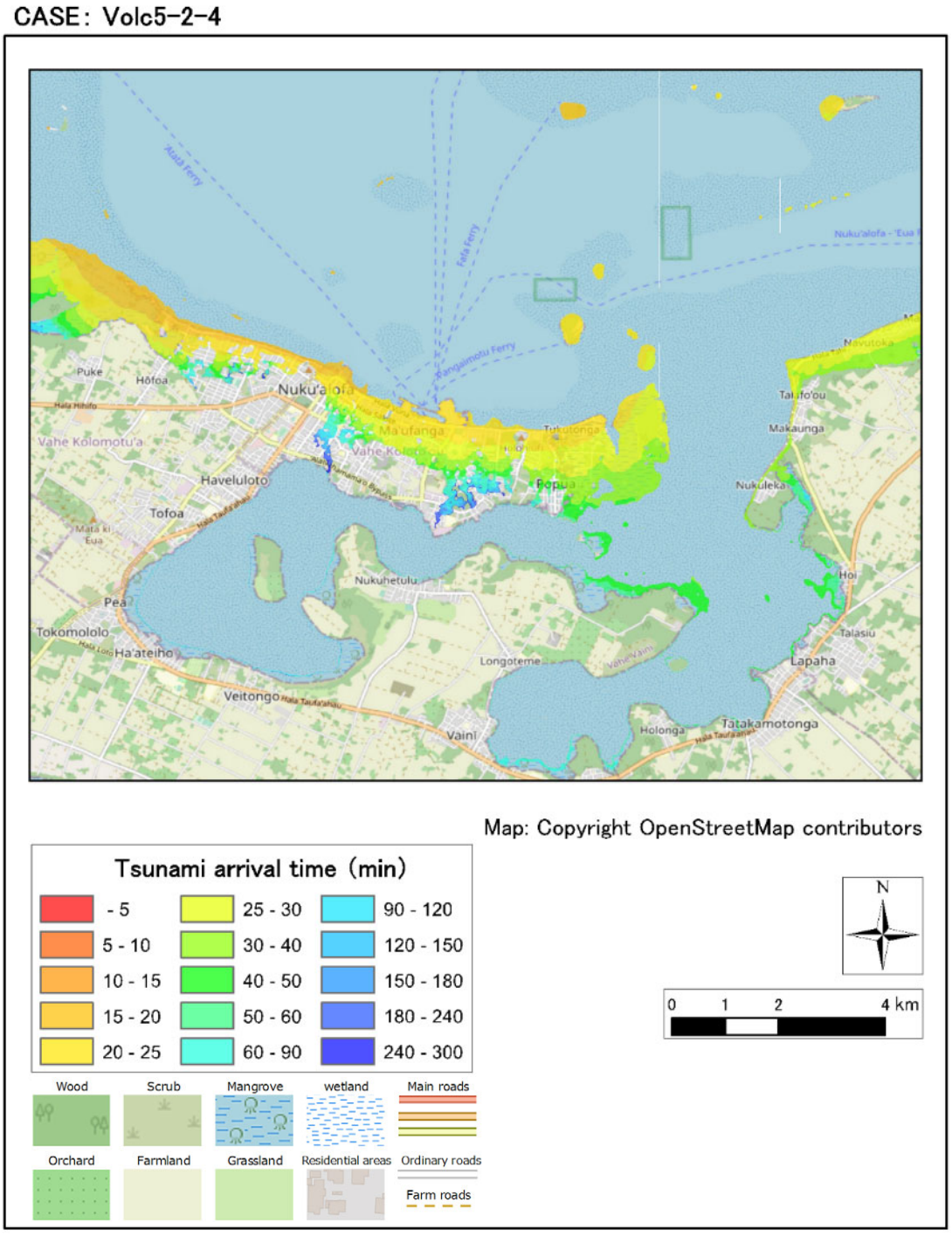
Source: JICA Study Team

Figure 2.6.238 Tsunami Arraival Time Distribution (Lateiki, H=60m Raised Seawall M.S.L.+3.0m)



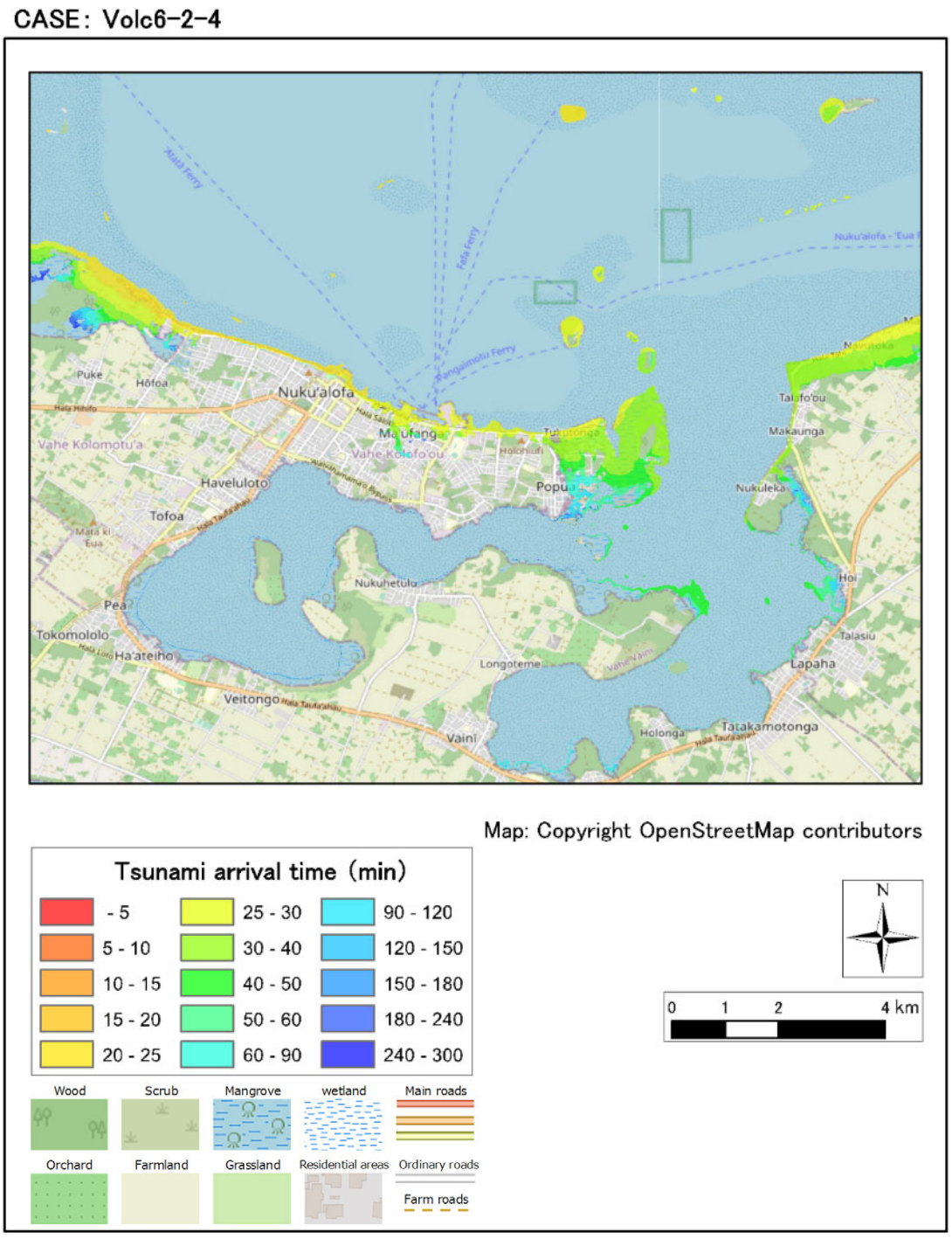
Source: JICA Study Team

Figure 2.6.239 Tsunami Arraival Time Distribution (Fonuafo'ou, H=60m Raised Seawall M.S.L.+3.0m)



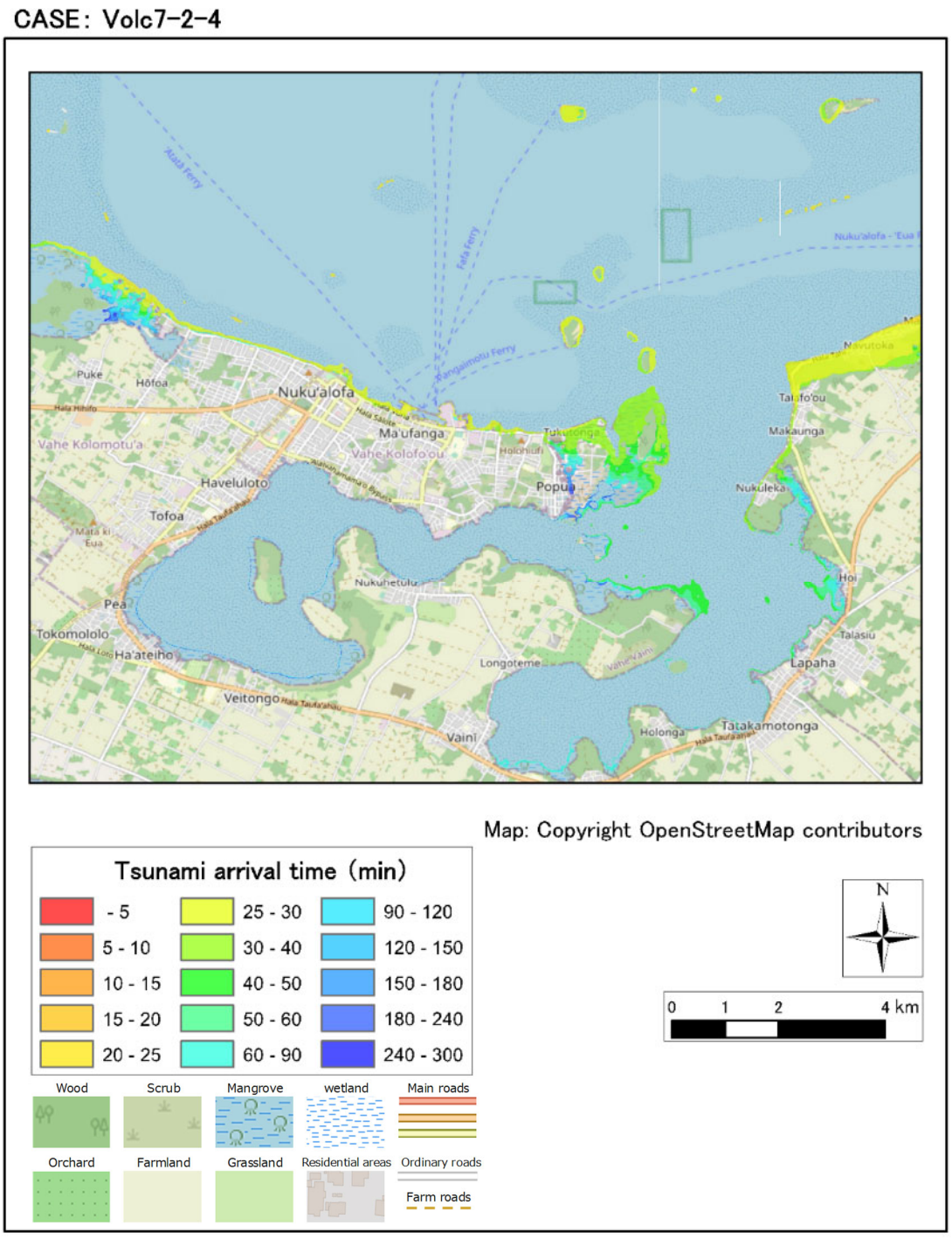
Source: JICA Study Team

Figure 2.6.240 Tsunami Arraival Time Distribution (Unamed2, H=60m Raised Seawall M.S.L.+3.0m)



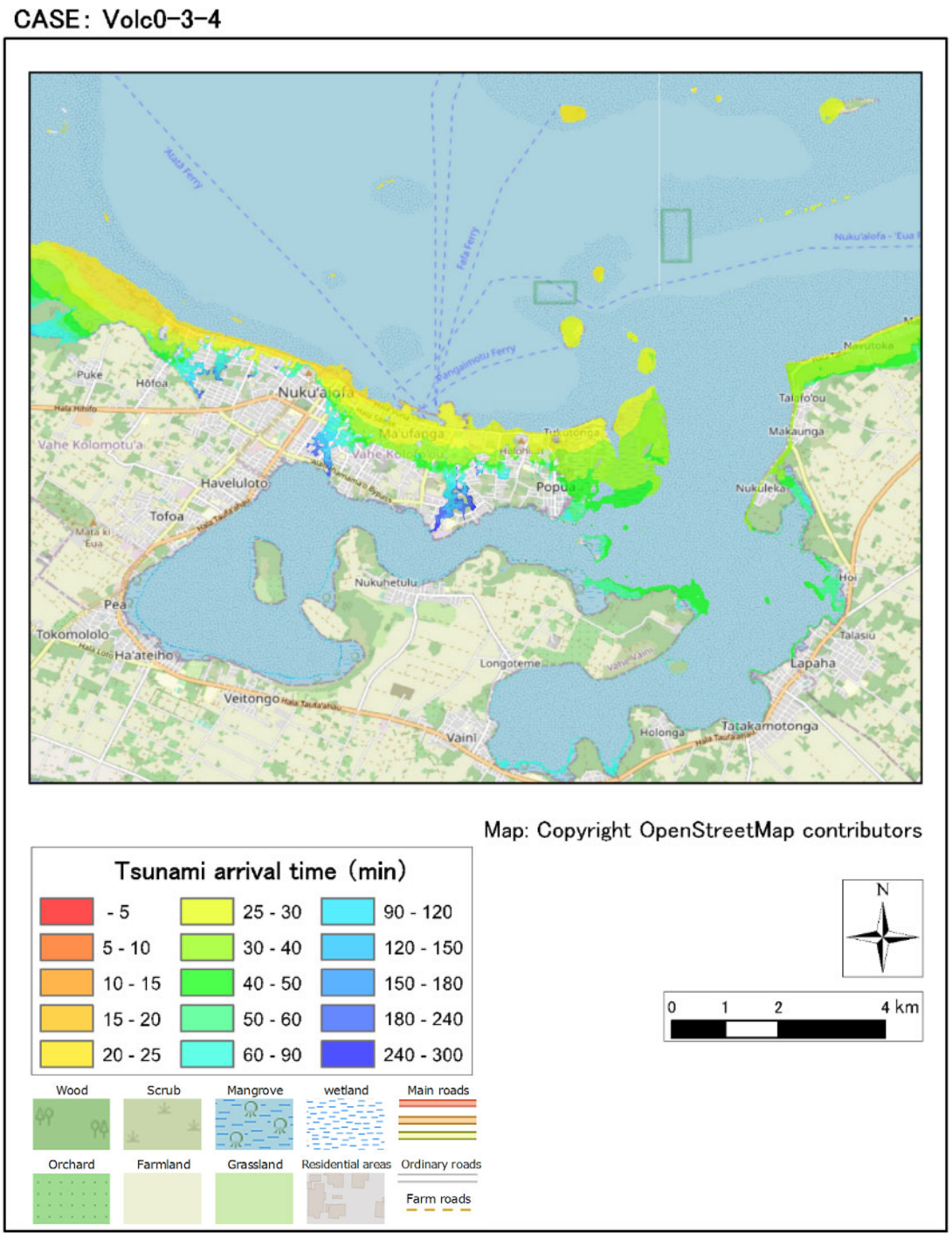
Source: JICA Study Team

Figure 2.6.241 Tsunami Arraival Time Distribution (Unamed3, H=60m Raised Seawall M.S.L.+3.0m)



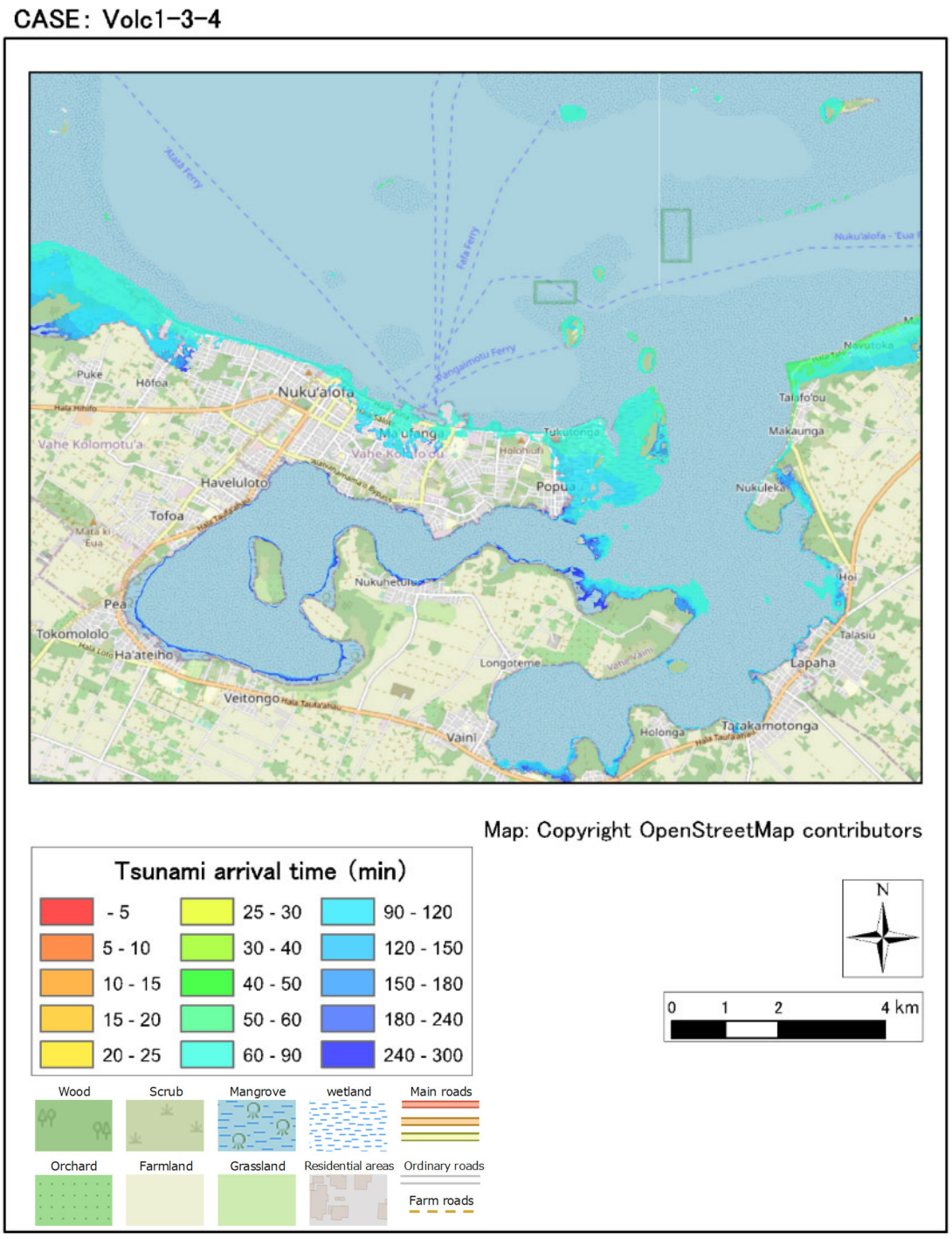
Source: JICA Study Team

Figure 2.6.242 Tsunami Arraival Time Distribution (Unamed4, H=60m Raised Seawall M.S.L.+3.0m)



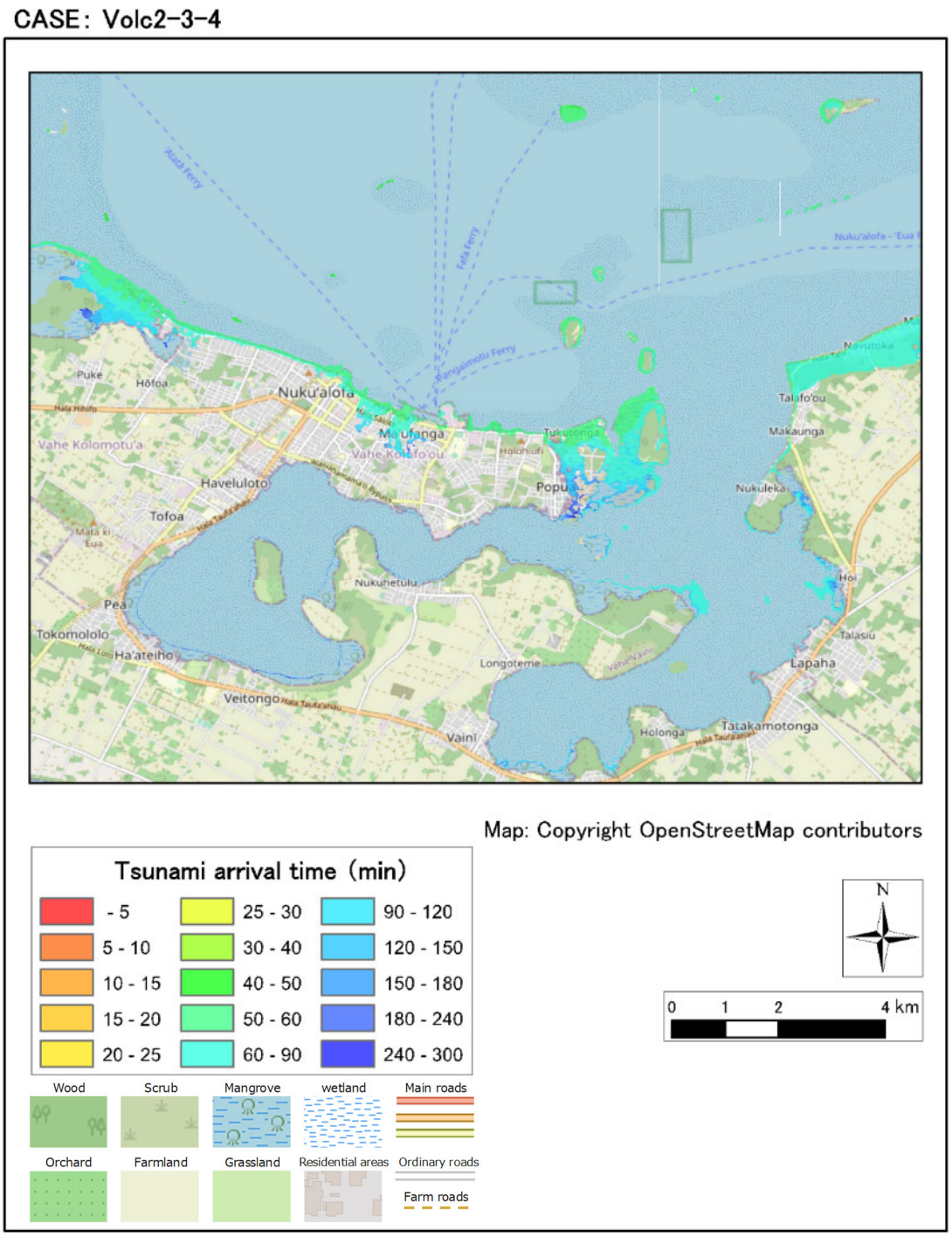
Source: JICA Study Team

Figure 2.6.243 Tsunami Arraival Time Distribution (Hunga Tonga-Hunga Ha'pai, H=90m Raised Seawall M.S.L.+3.0m)



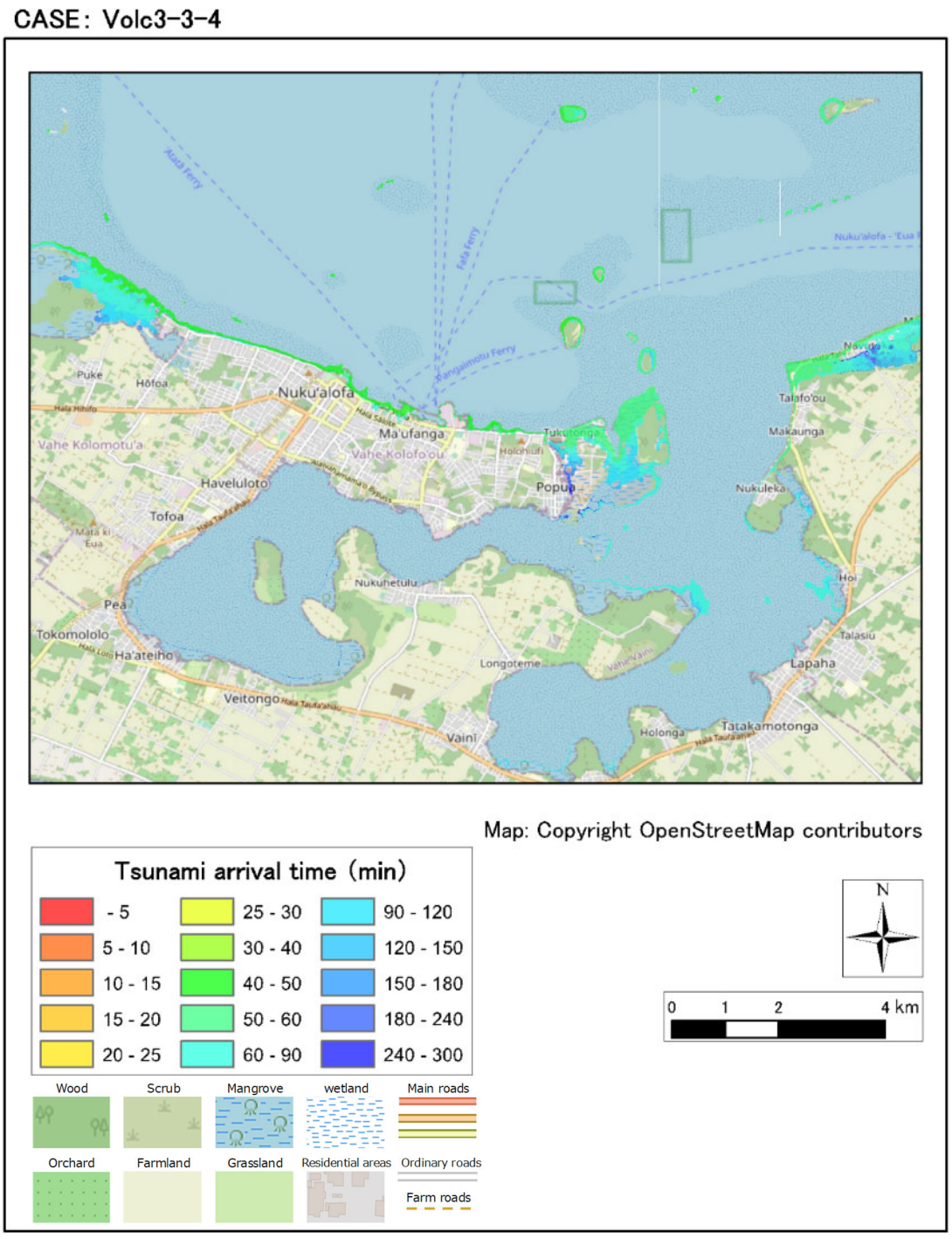
Source: JICA Study Team

Figure 2.6.244 Tsunami Arraival Time Distribution (Unnamed1, H=90m Raised Seawall M.S.L.+3.0m)



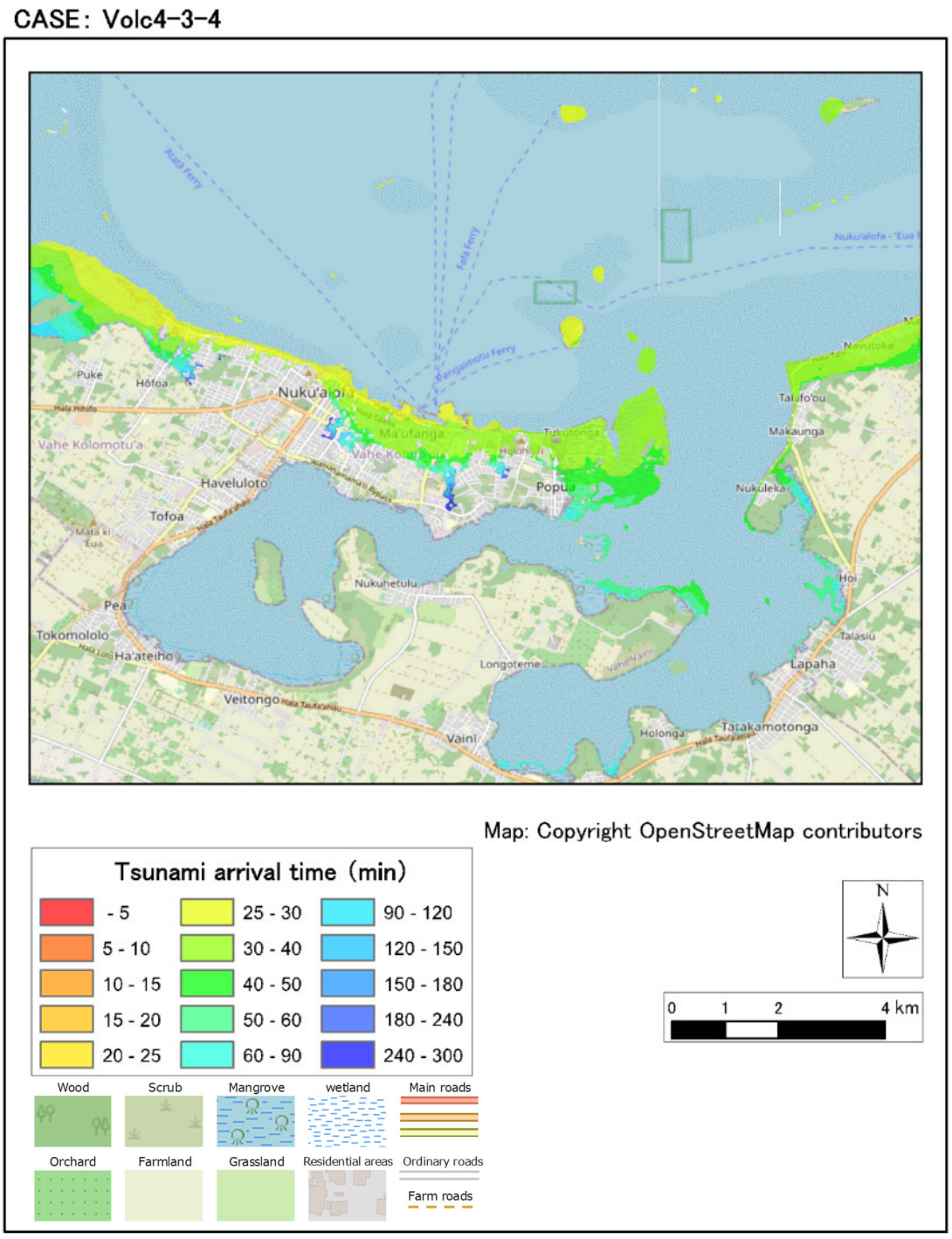
Source: JICA Study Team

Figure 2.6.245 Tsunami Arraival Time Distribution (HomeReef, H=90m Raised Seawall M.S.L.+3.0m)



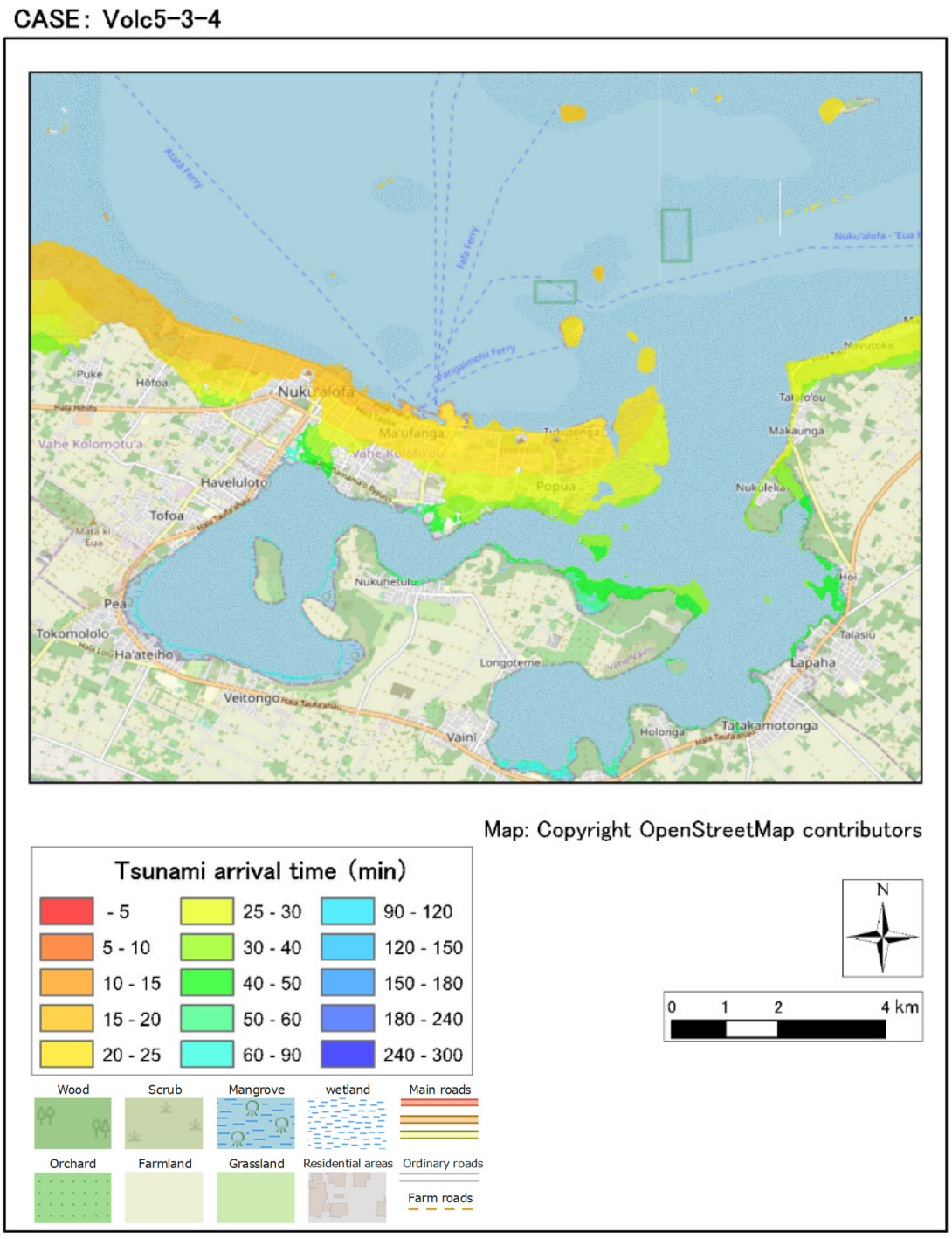
Source: JICA Study Team

Figure 2.6.246 Tsunami Arraival Time Distribution (Lateiki, H=90m Raised Seawall M.S.L.+3.0m)



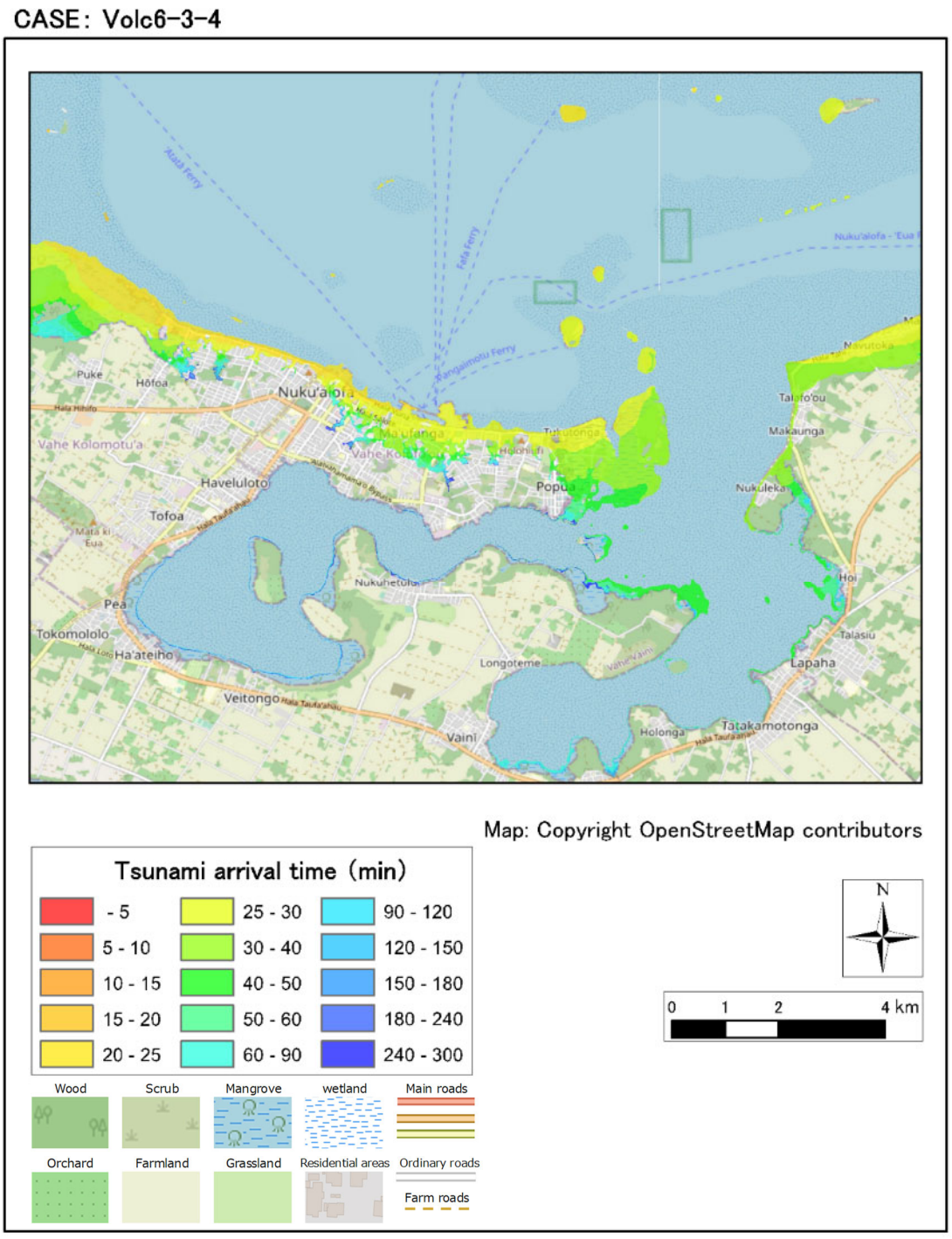
Source: JICA Study Team

Figure 2.6.247 Tsunami Arraival Time Distribution (Fonuafo'ou, H=90m Raised Seawall M.S.L.+3.0m)



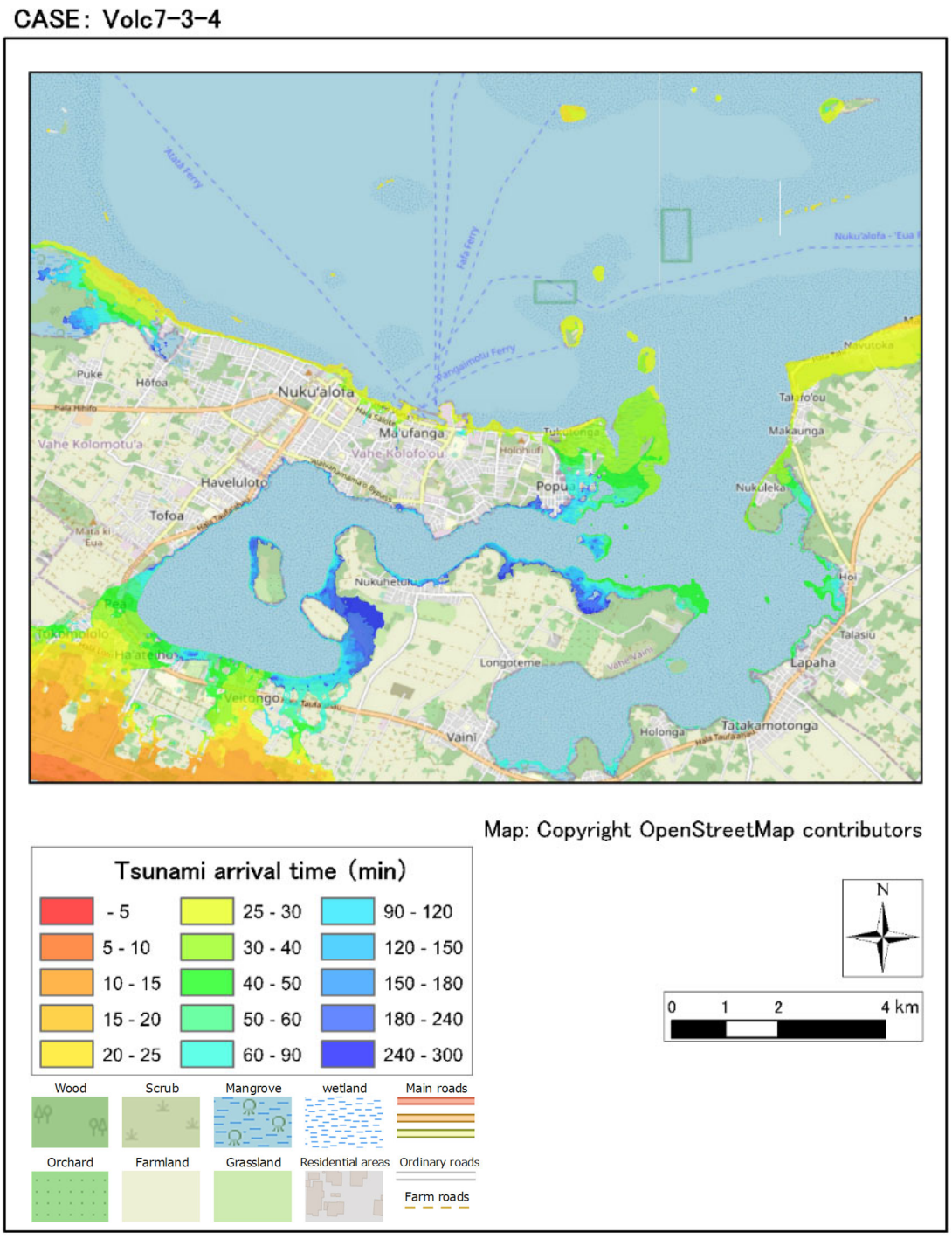
Source: JICA Study Team

Figure 2.6.248 Tsunami Arraival Time Distribution (Unamed2, H=90m Raised Seawall M.S.L.+3.0m)



Source: JICA Study Team

Figure 2.6.249 Tsunami Arraival Time Distribution (Unamed3, H=90m Raised Seawall M.S.L.+3.0m)

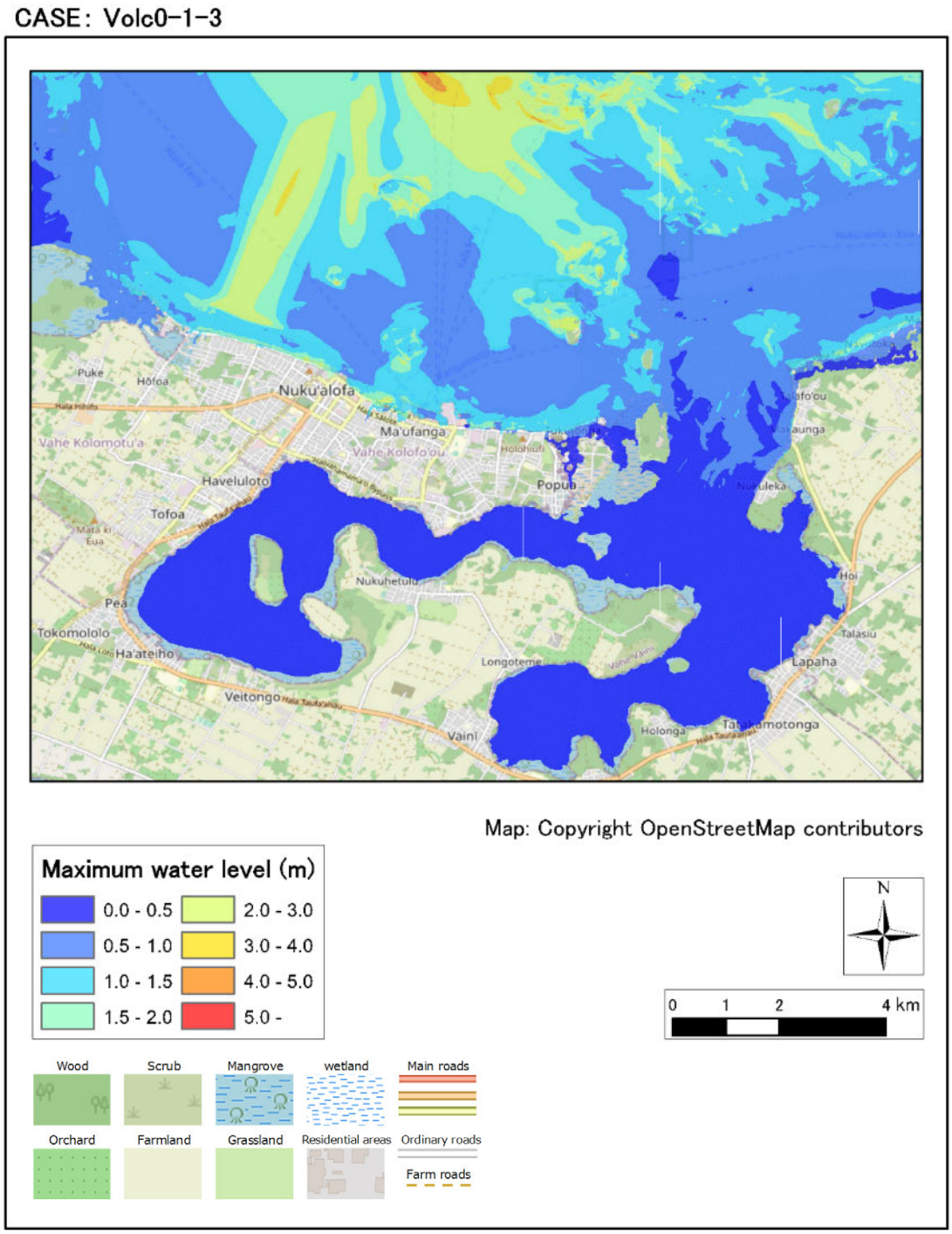


Source: JICA Study Team

Figure 2.6.250 Tsunami Arraival Time Distribution (Unamed4, H=90m Raised Seawall M.S.L.+3.0m)

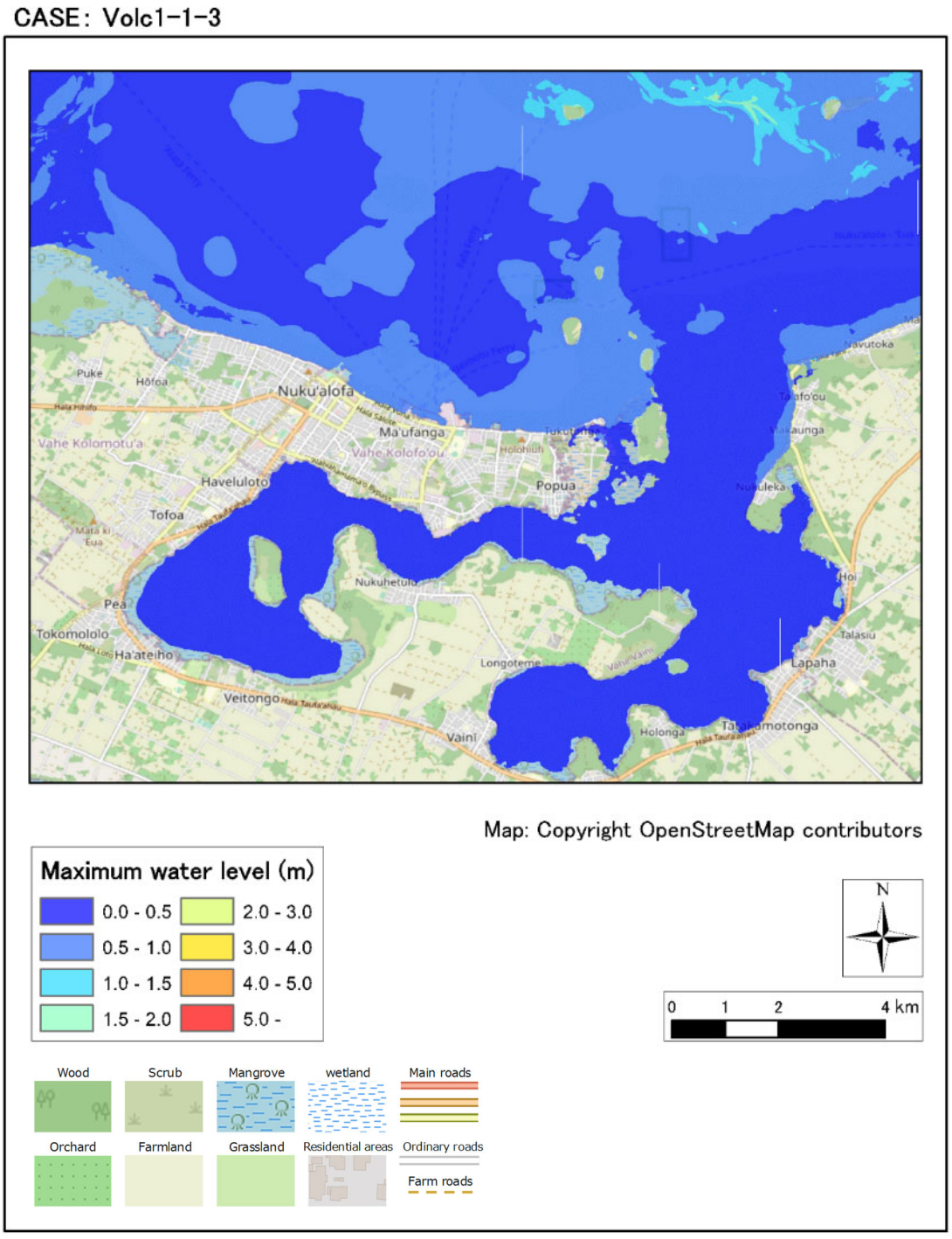
2) Height of seawall to be addressed (M.S.L. + 4.0 m).

a. Max Water Level Distribution



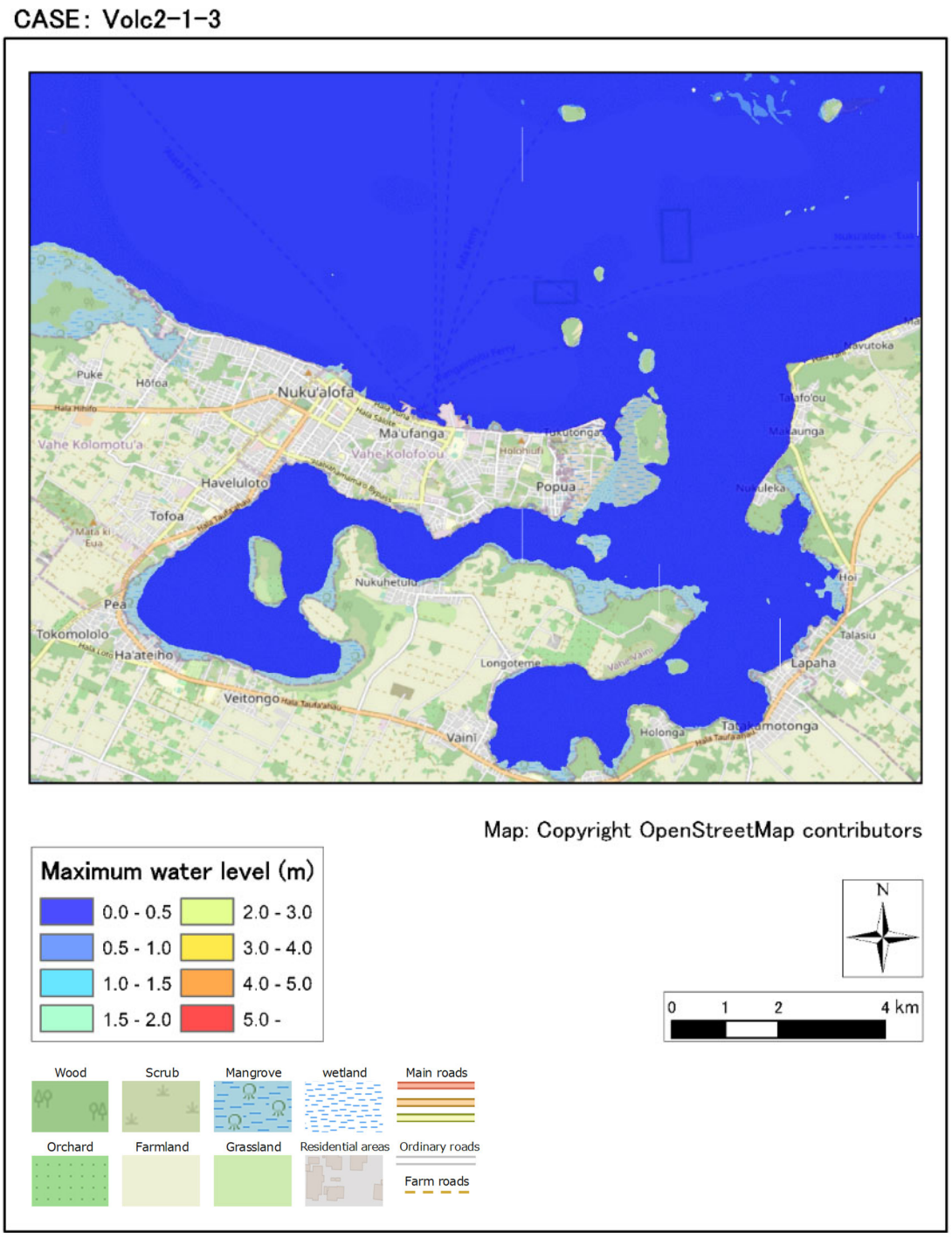
Source: JICA Study Team

Figure 2.6.251 Max Water Level Distribution (Hunga Tonga-Hunga Ha'pai, H=30m Raised Seawall M.S.L.+4.0m)



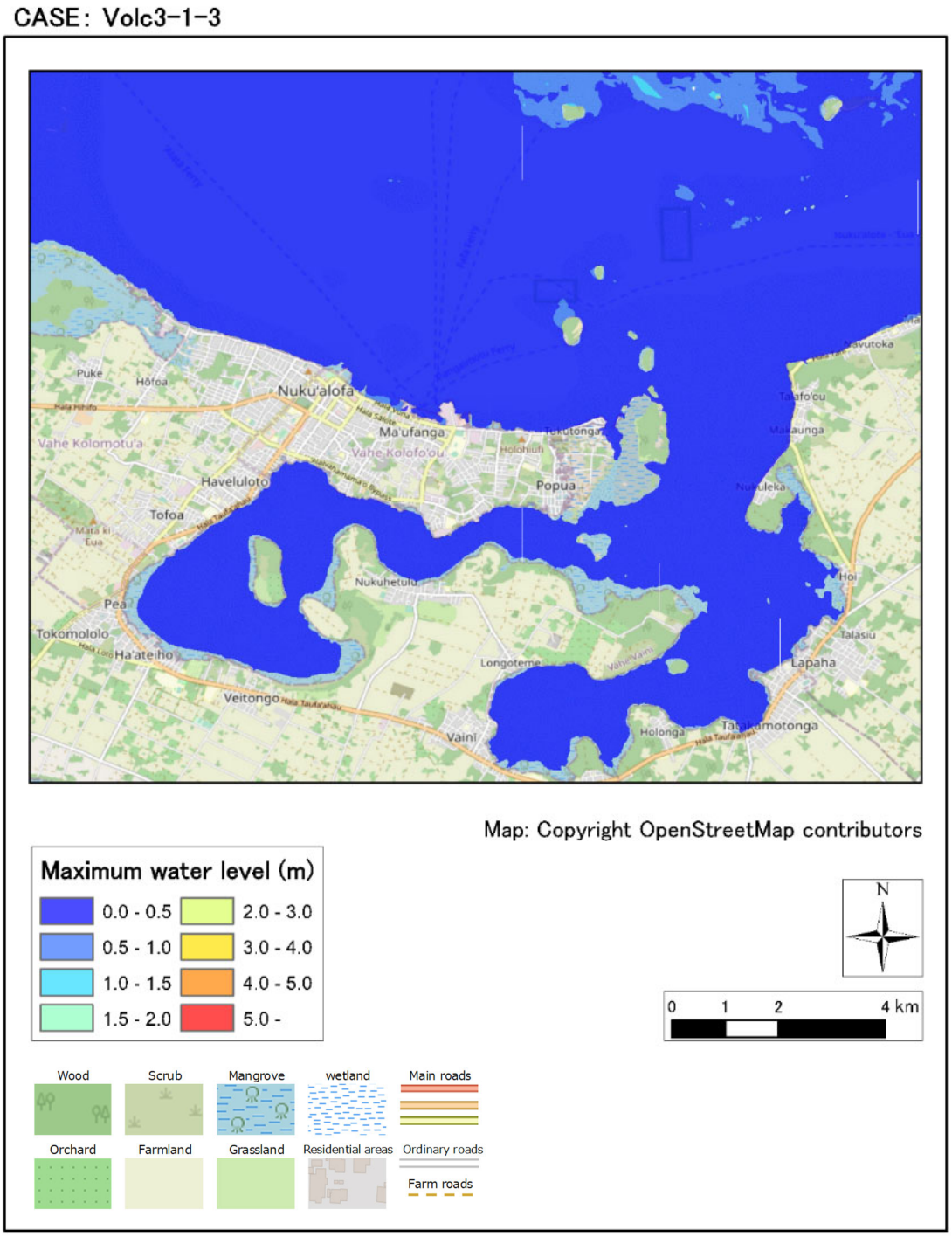
Source: JICA Study Team

Figure 2.6.252 Max Water Level Distribution (Unnamed1, H=30m Raised Seawall M.S.L.+4.0m)



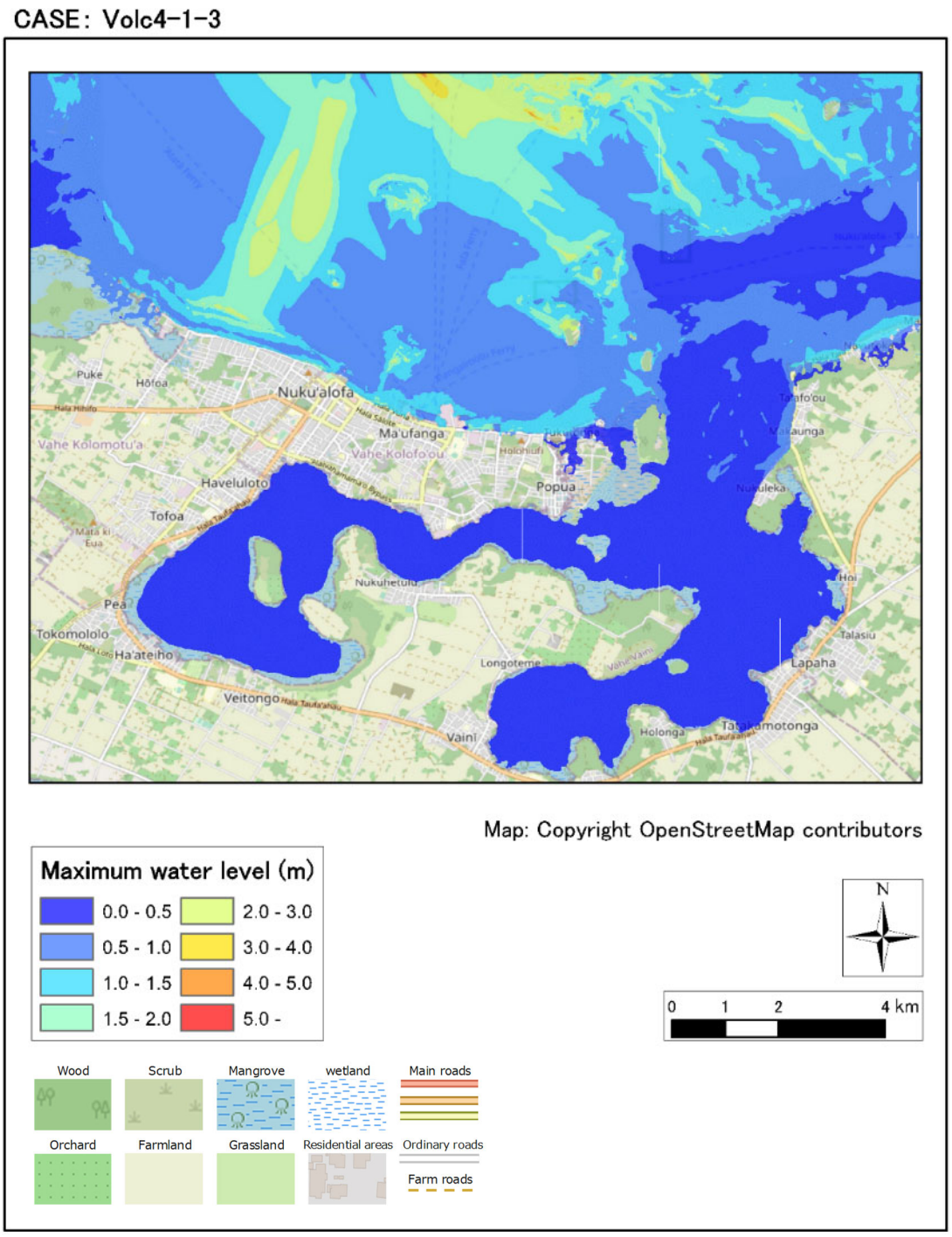
Source: JICA Study Team

Figure 2.6.253 Max Water Level Distribution (HomeReef, H=30m Raised Seawall M.S.L.+4.0m)



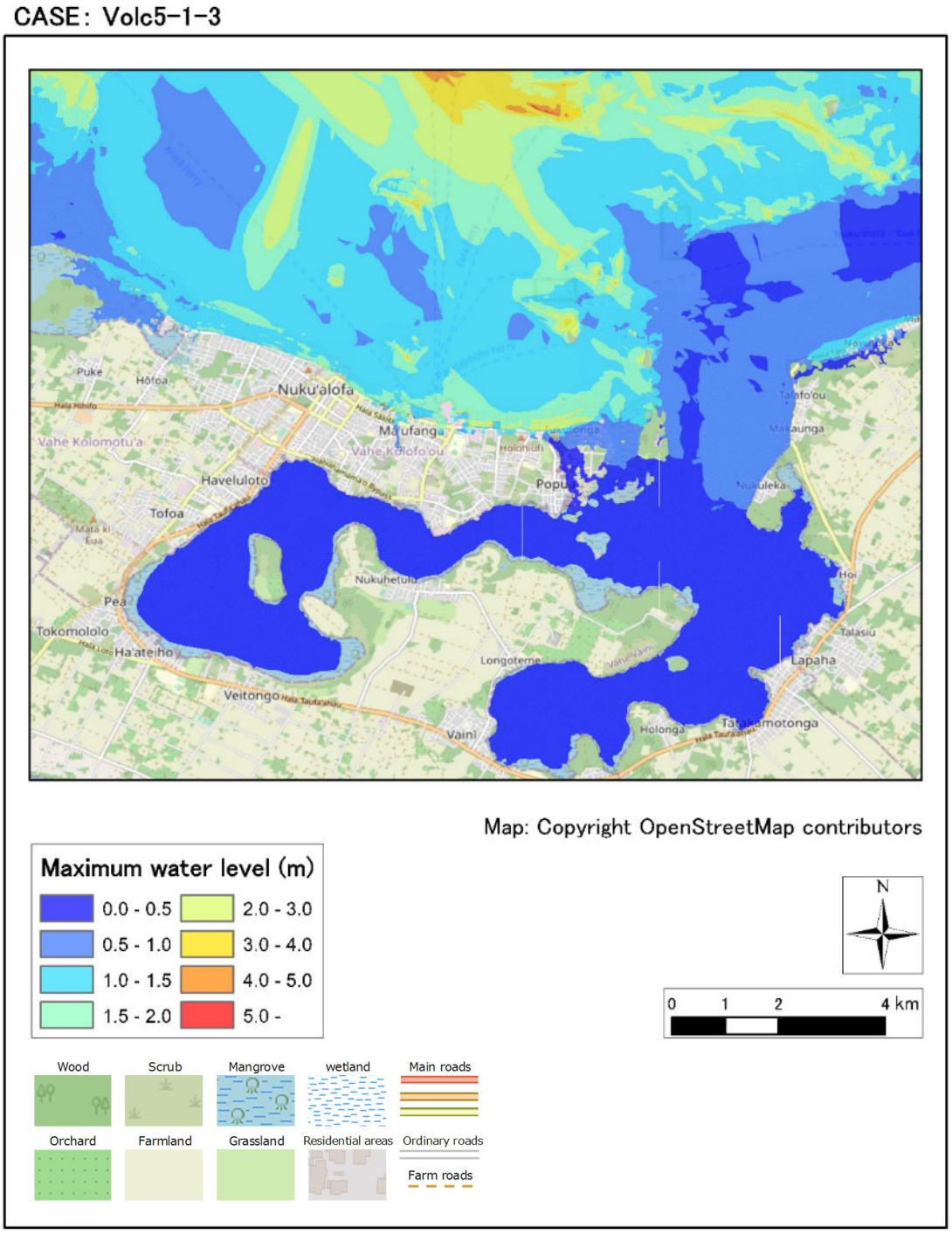
Source: JICA Study Team

Figure 2.6.254 Max Water Level Distribution (Lateiki, H=30m Raised Seawall M.S.L.+4.0m)



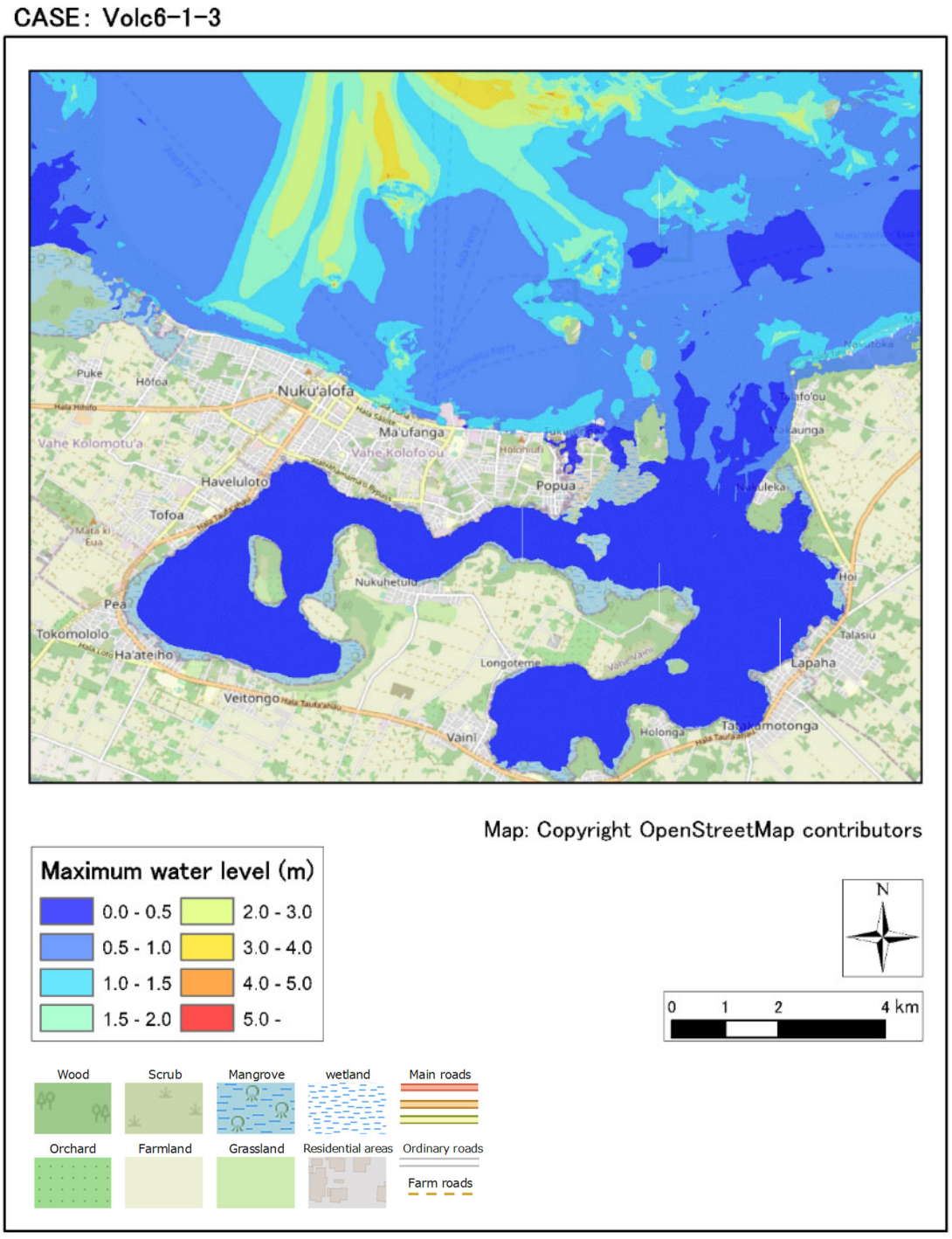
Source: JICA Study Team

Figure 2.6.255 Max Water Level Distribution (Fonuafo'ou H=30m Raised Seawall M.S.L.+4.0m)



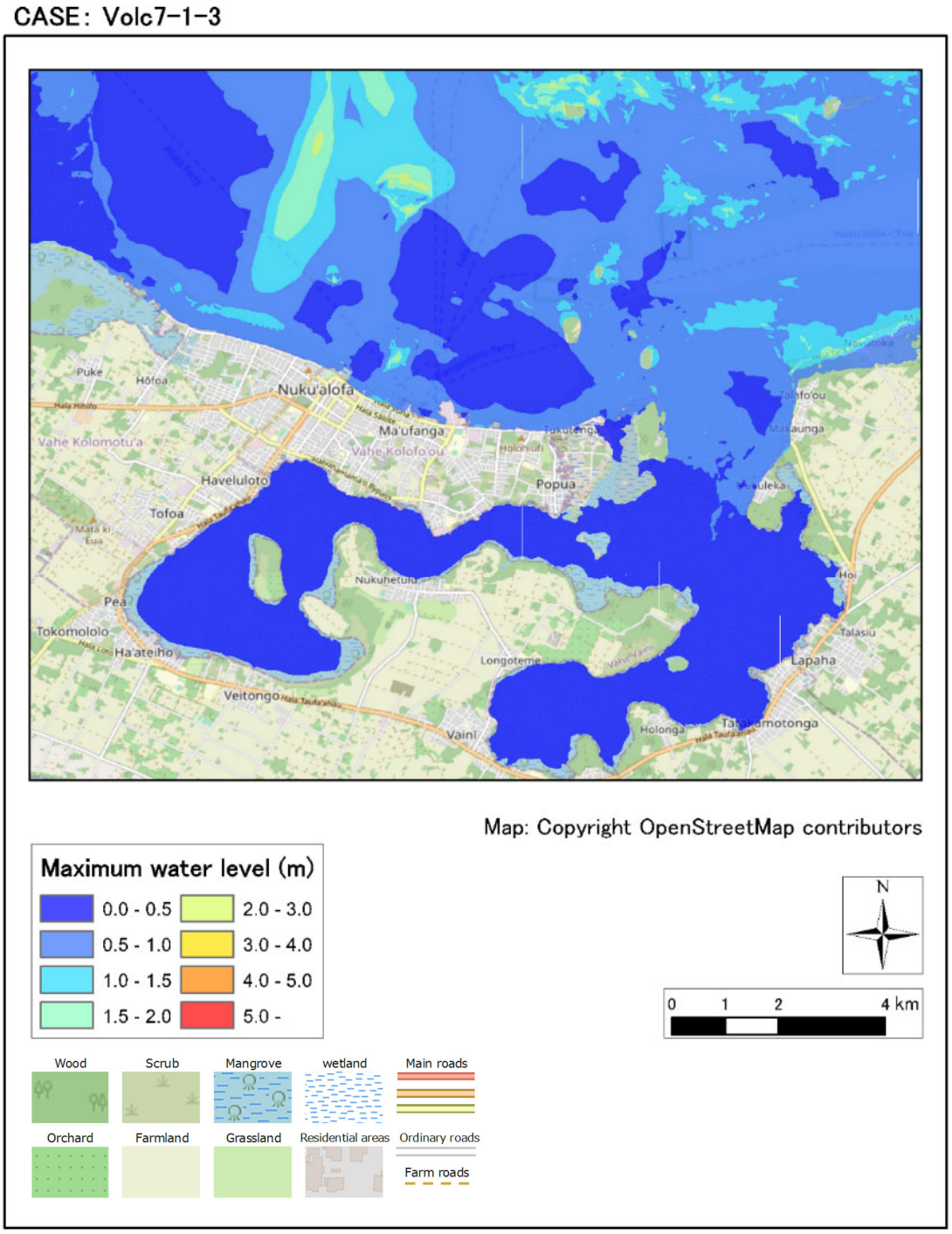
Source: JICA Study Team

Figure 2.6.256 Max Water Level Distribution (Unamed2, H=30m Raised Seawall M.S.L.+4.0m)



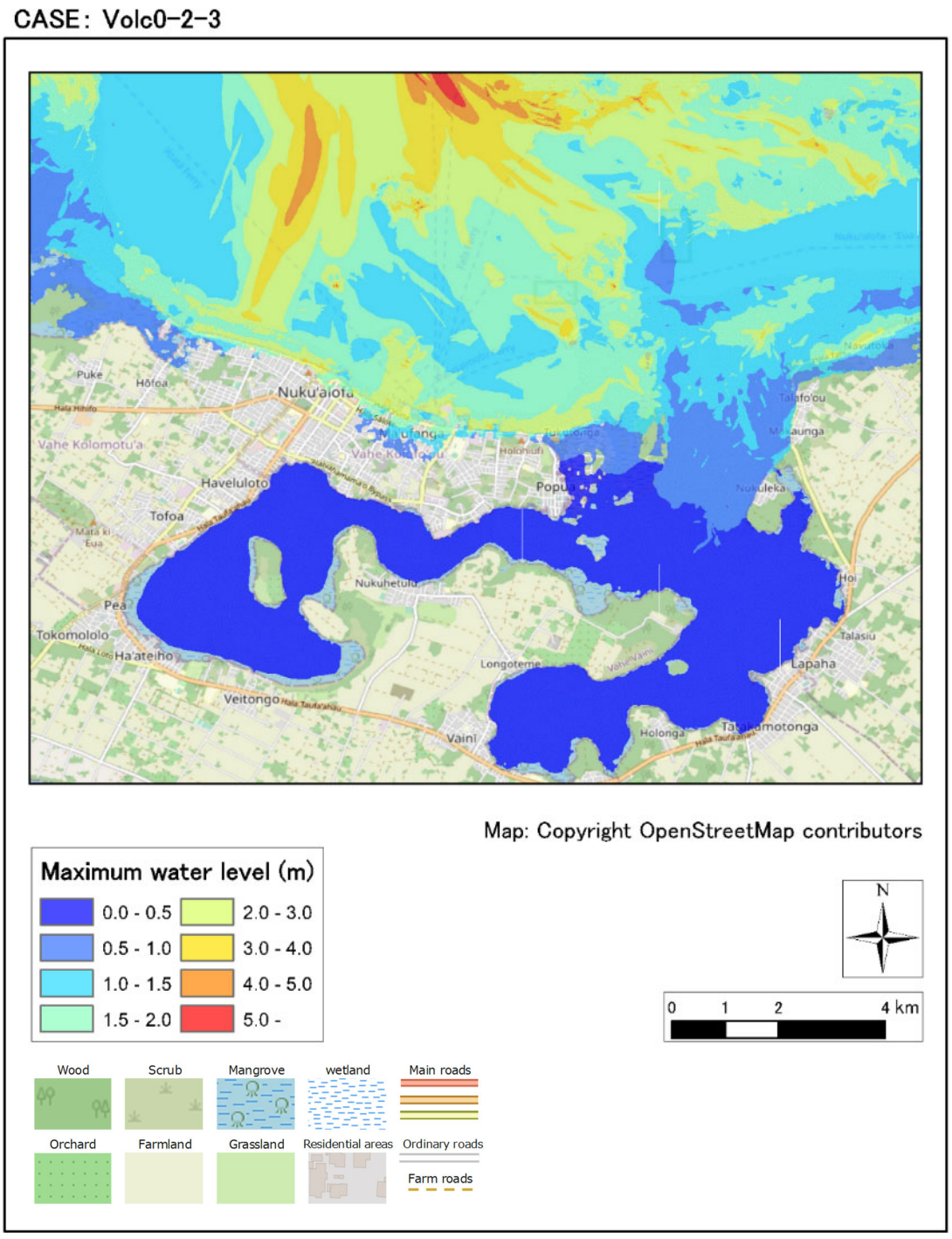
Source: JICA Study Team

Figure 2.6.257 Max Water Level Distribution (Unamed3, H=30m Raised Seawall M.S.L.+4.0m)



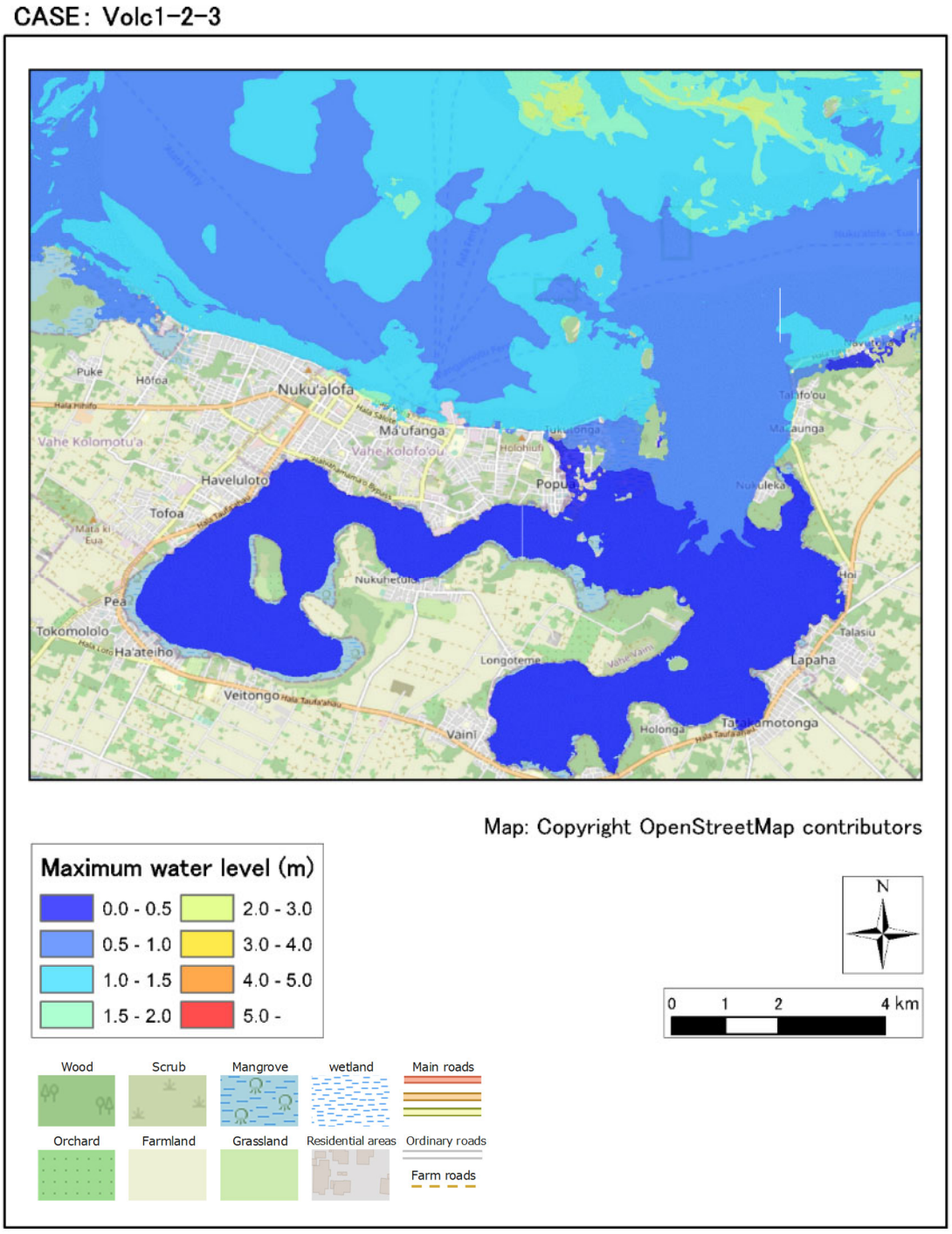
Source: JICA Study Team

Figure 2.6.258 Max Water Level Distribution (Unamed4, H=30m Raised Seawall M.S.L.+4.0m)



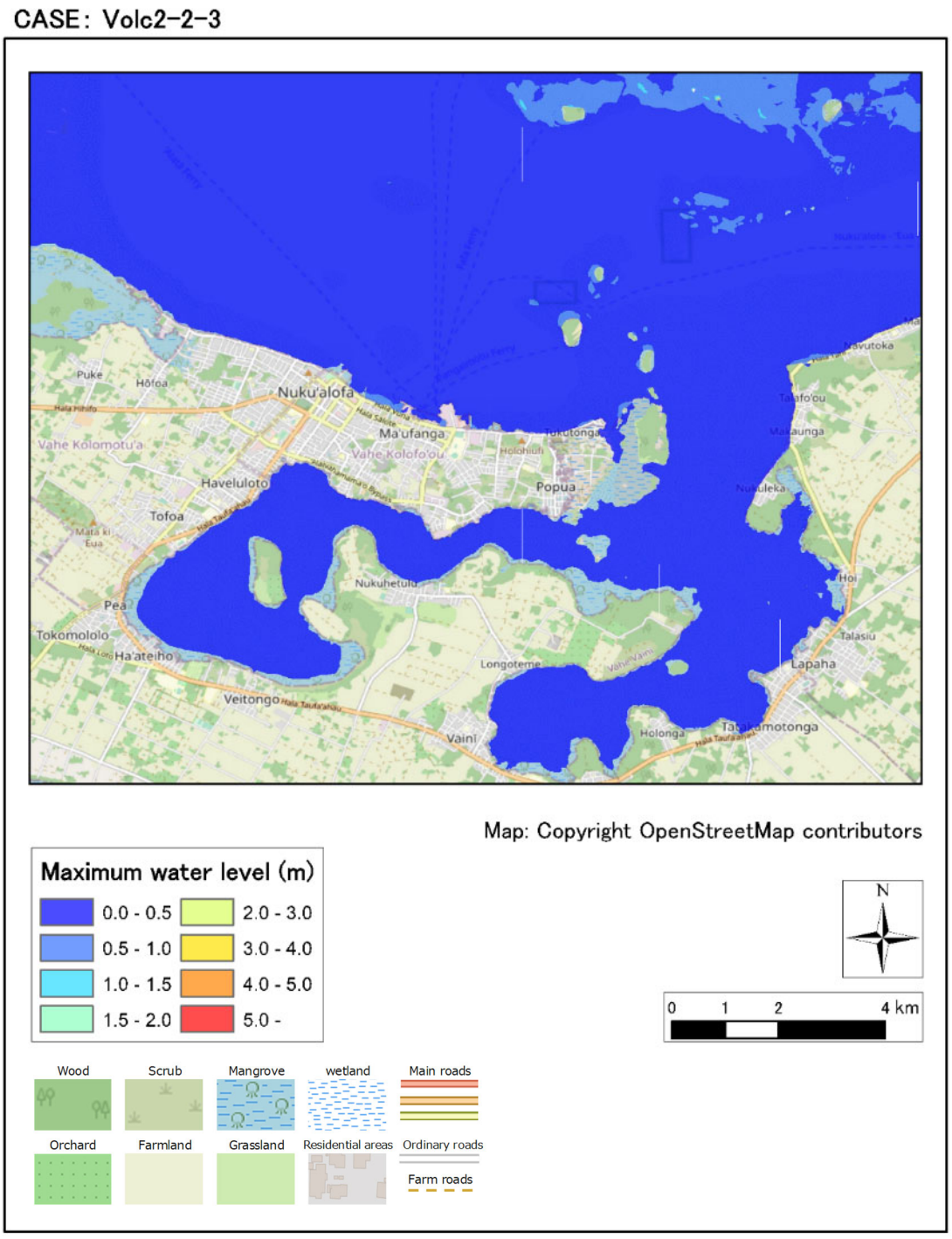
Source: JICA Study Team

Figure 2.6.259 Max Water Level Distribution (Hunga Tonga-Hunga Ha'pai, H=60m Raised Seawall M.S.L.+4.0m)



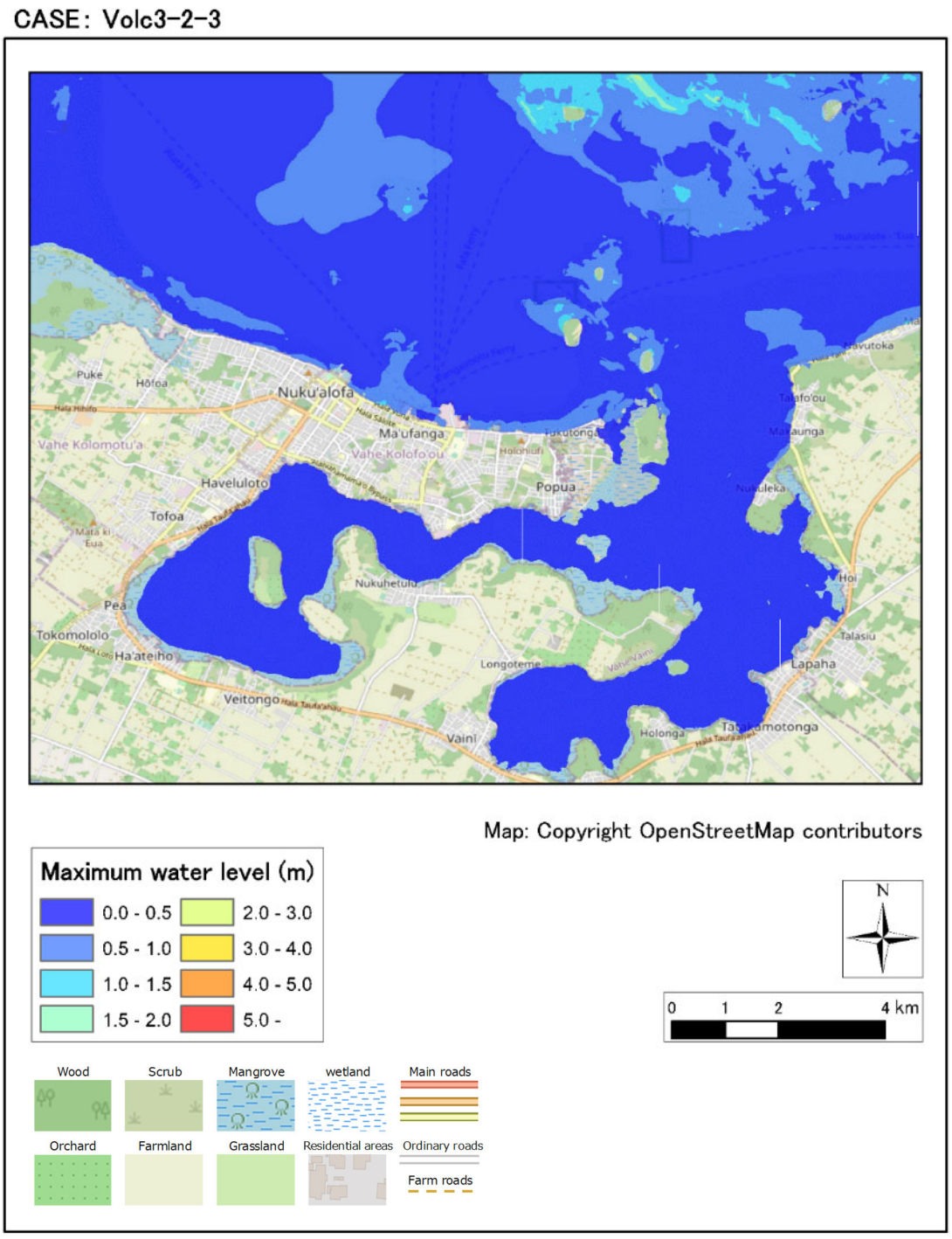
Source: JICA Study Team

Figure 2.6.260 Max Water Level Distribution (Unnamed1, H=60m Raised Seawall M.S.L.+4.0m)



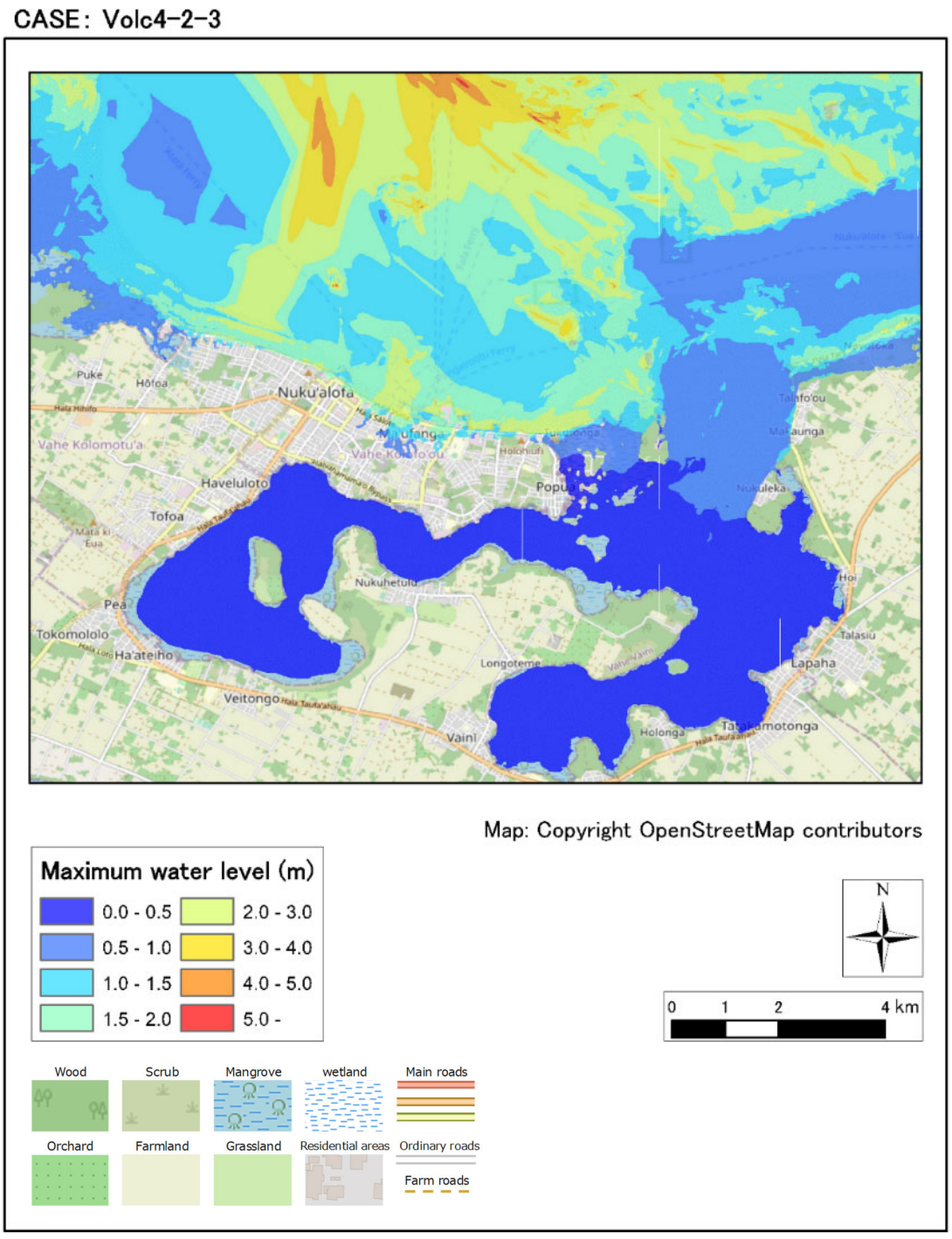
Source: JICA Study Team

Figure 2.6.261 Max Water Level Distribution (HomeReef, H=60m Raised Seawall M.S.L.+4.0m)



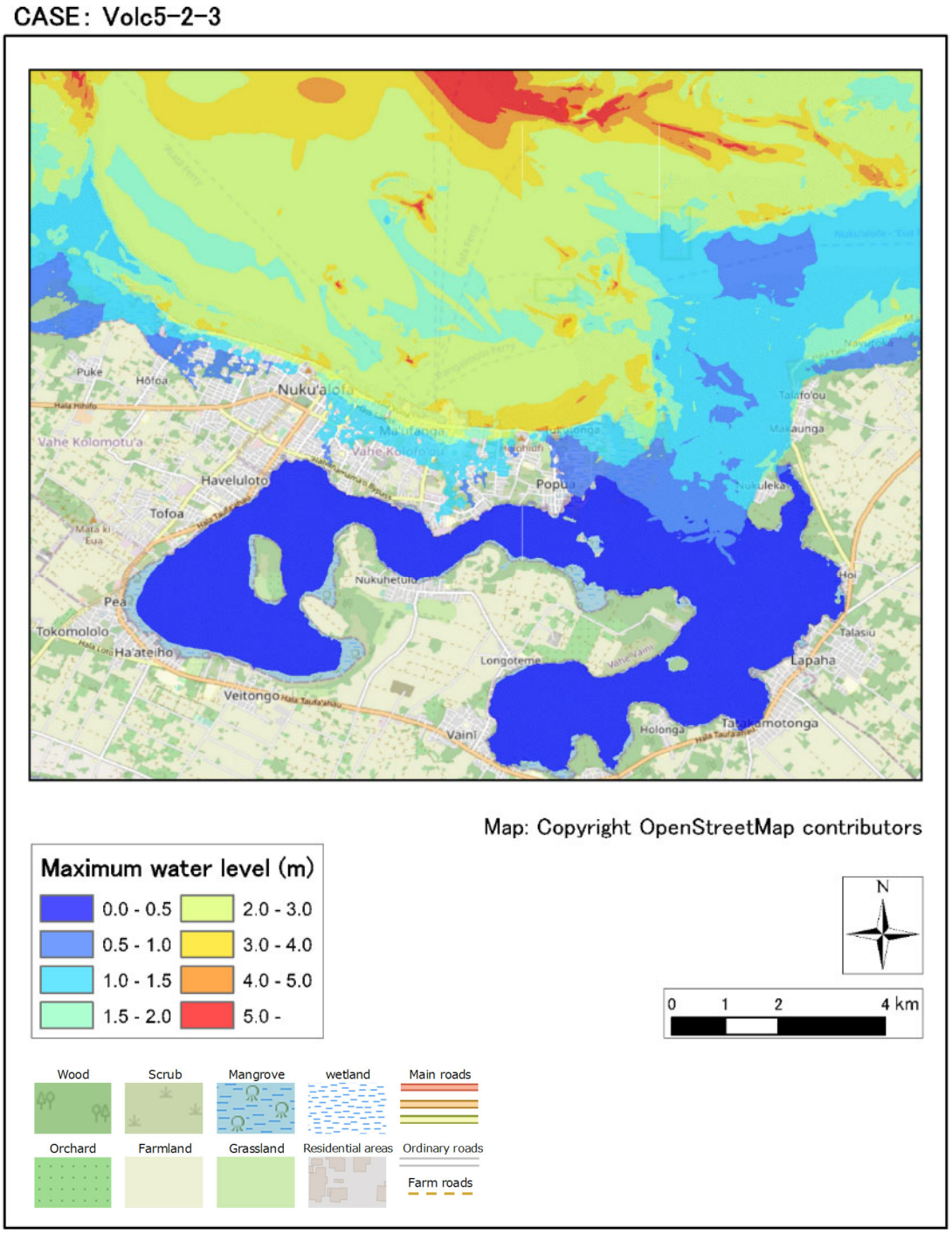
Source: JICA Study Team

Figure 2.6.262 Max Water Level Distribution (Lateiki, H=60m Raised Seawall M.S.L.+4.0m)



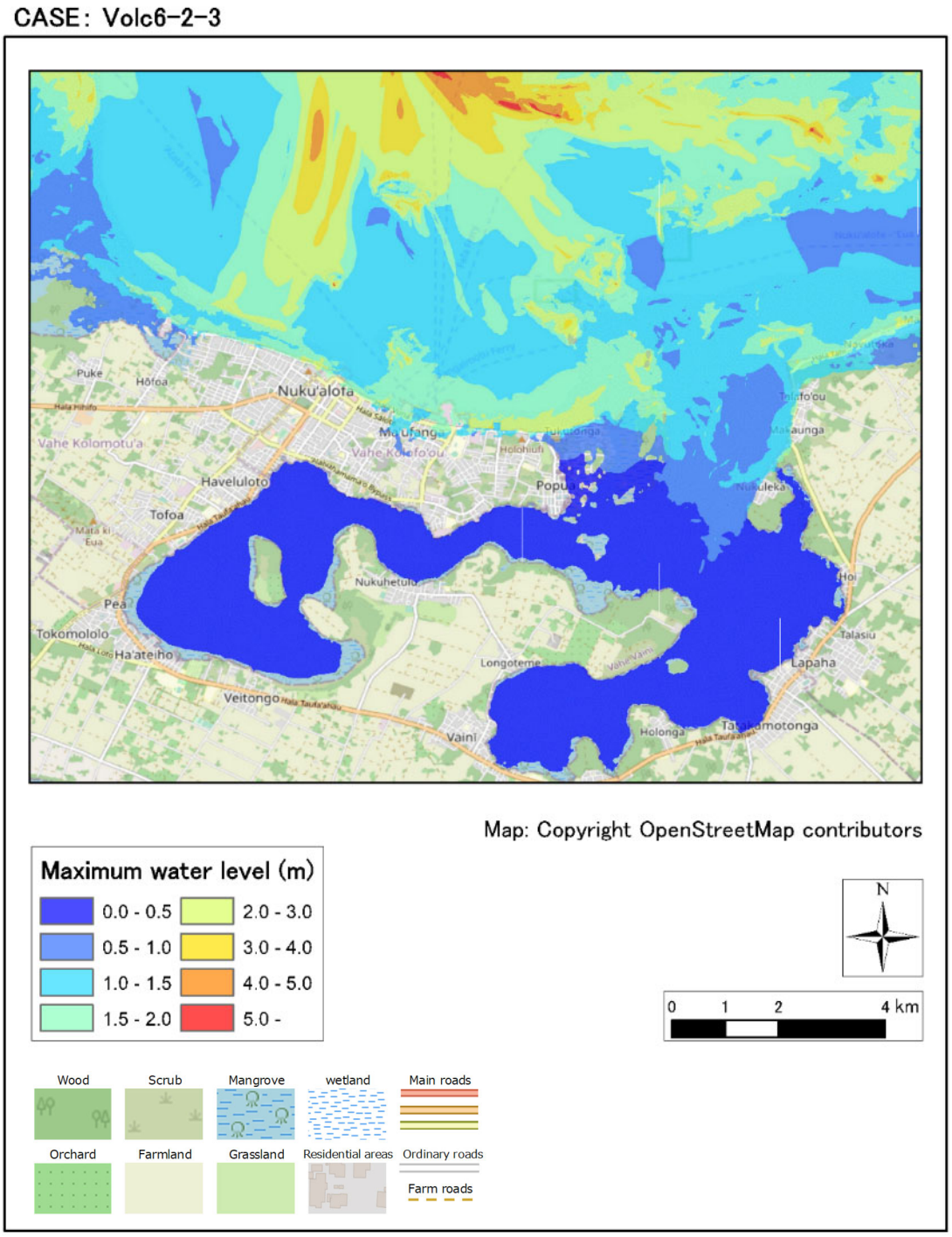
Source: JICA Study Team

Figure 2.6.263 Max Water Level Distribution (Fonuafo'ou, H=60m Raised Seawall M.S.L.+4.0m)



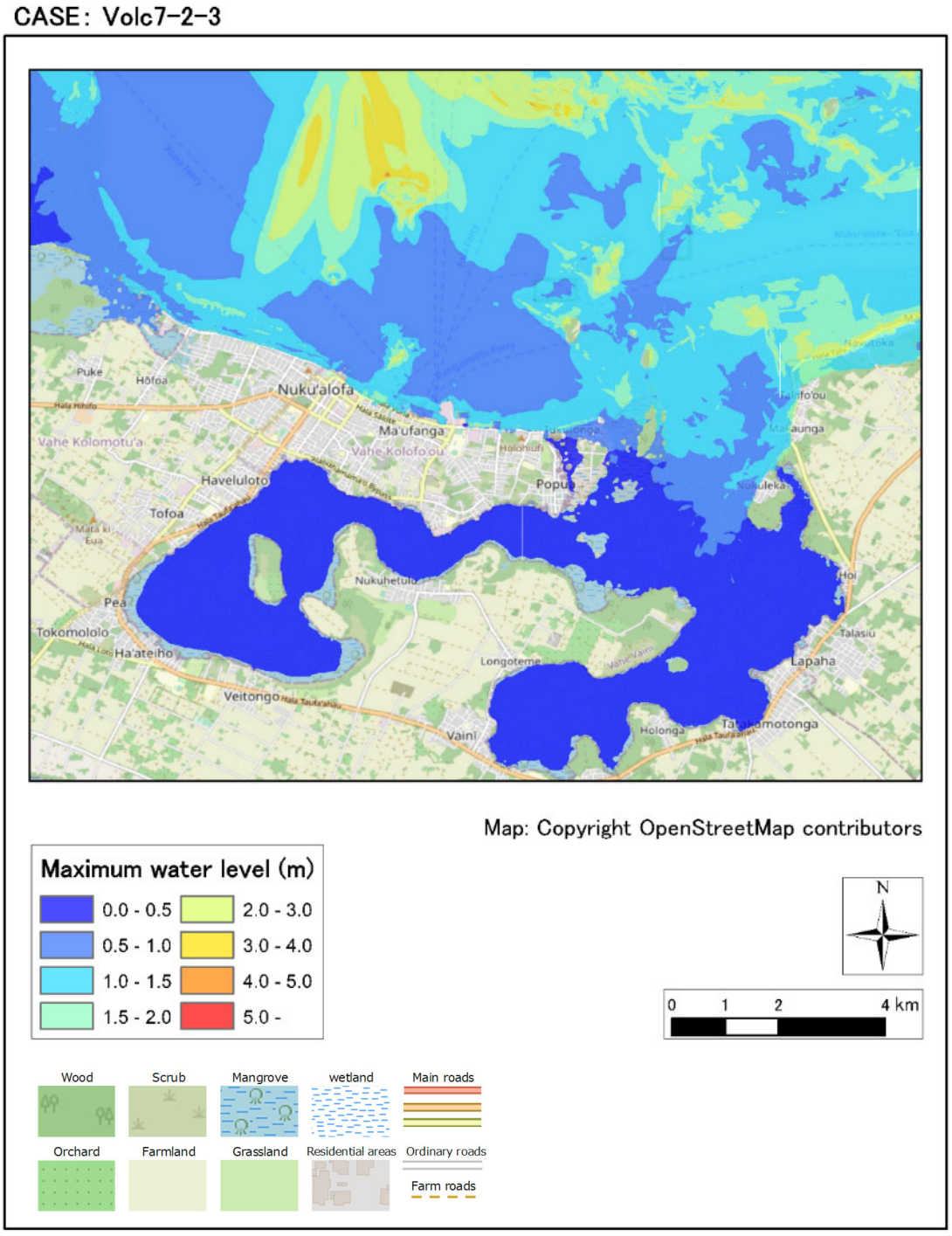
Source: JICA Study Team

Figure 2.6.264 Max Water Level Distribution (Unamed2, H=60m Raised Seawall M.S.L.+4.0m)



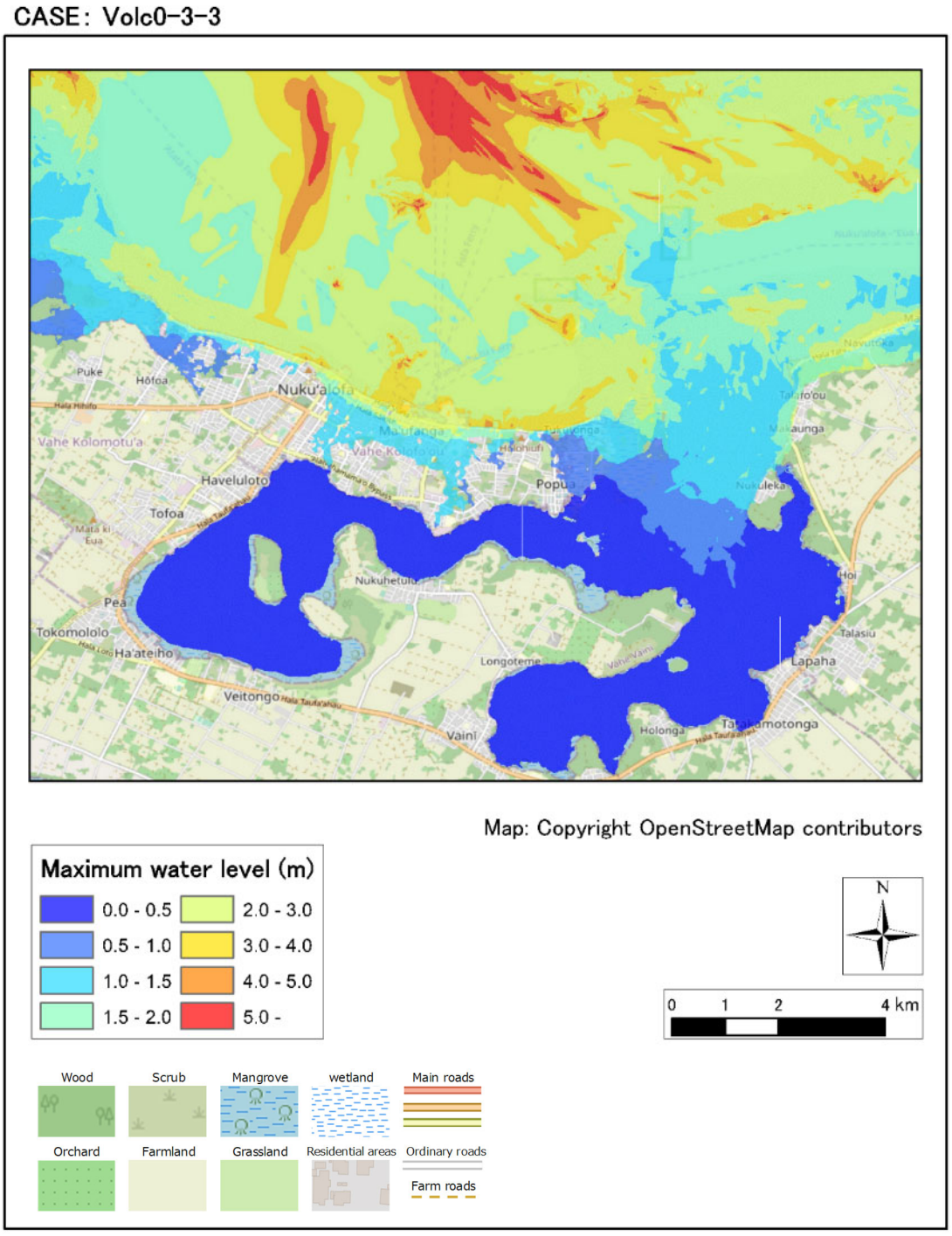
Source: JICA Study Team

Figure 2.6.265 Max Water Level Distribution (Unamed3, H=60m Raised Seawall M.S.L.+4.0m)



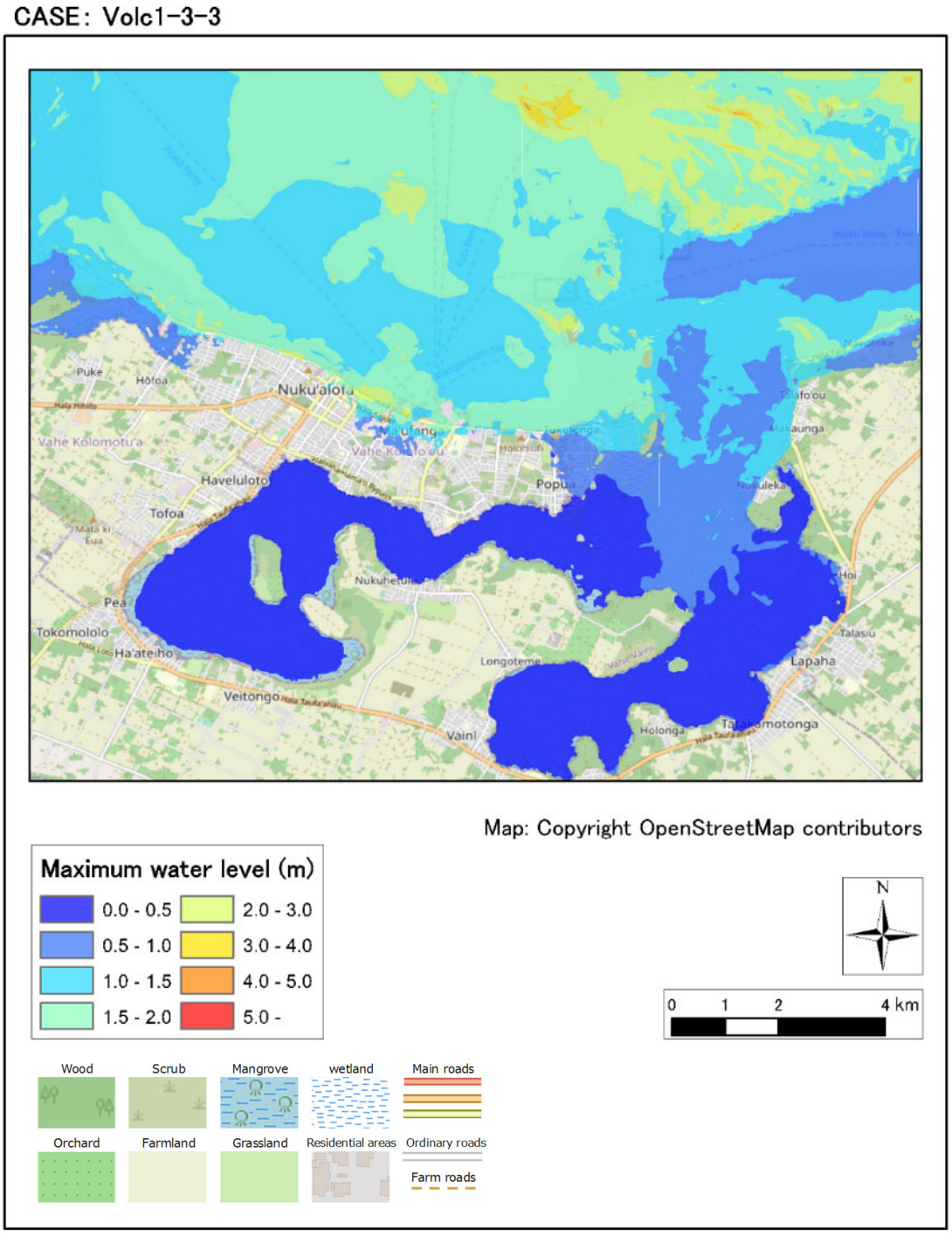
Source: JICA Study Team

Figure 2.6.266 Max Water Level Distribution (Unamed4, H=60m Raised Seawall M.S.L.+4.0m)



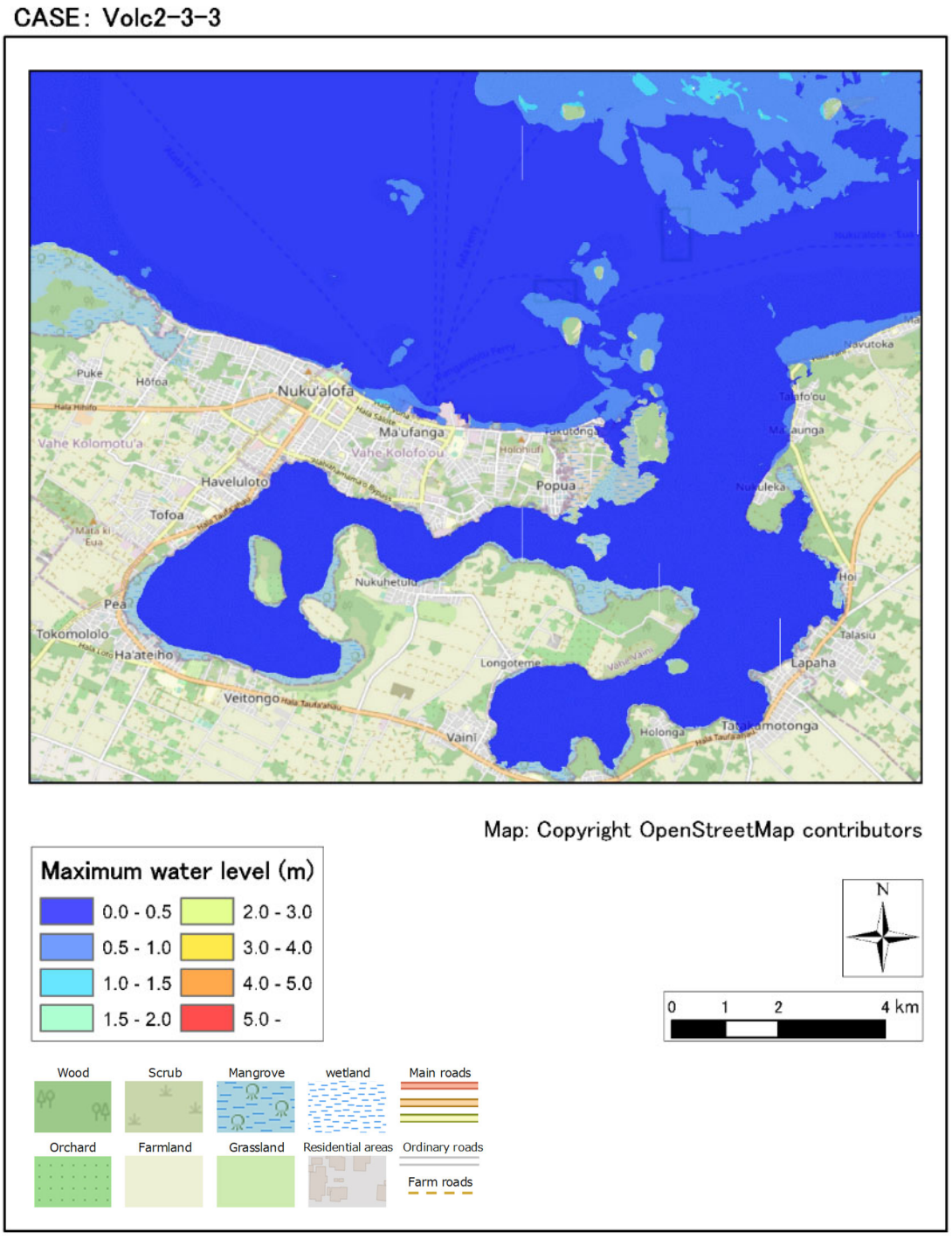
Source: JICA Study Team

Figure 2.6.267 Max Water Level Distribution (Hunga Tonga-Hunga Ha'pai, H=90m Raised Seawall M.S.L.+4.0m)



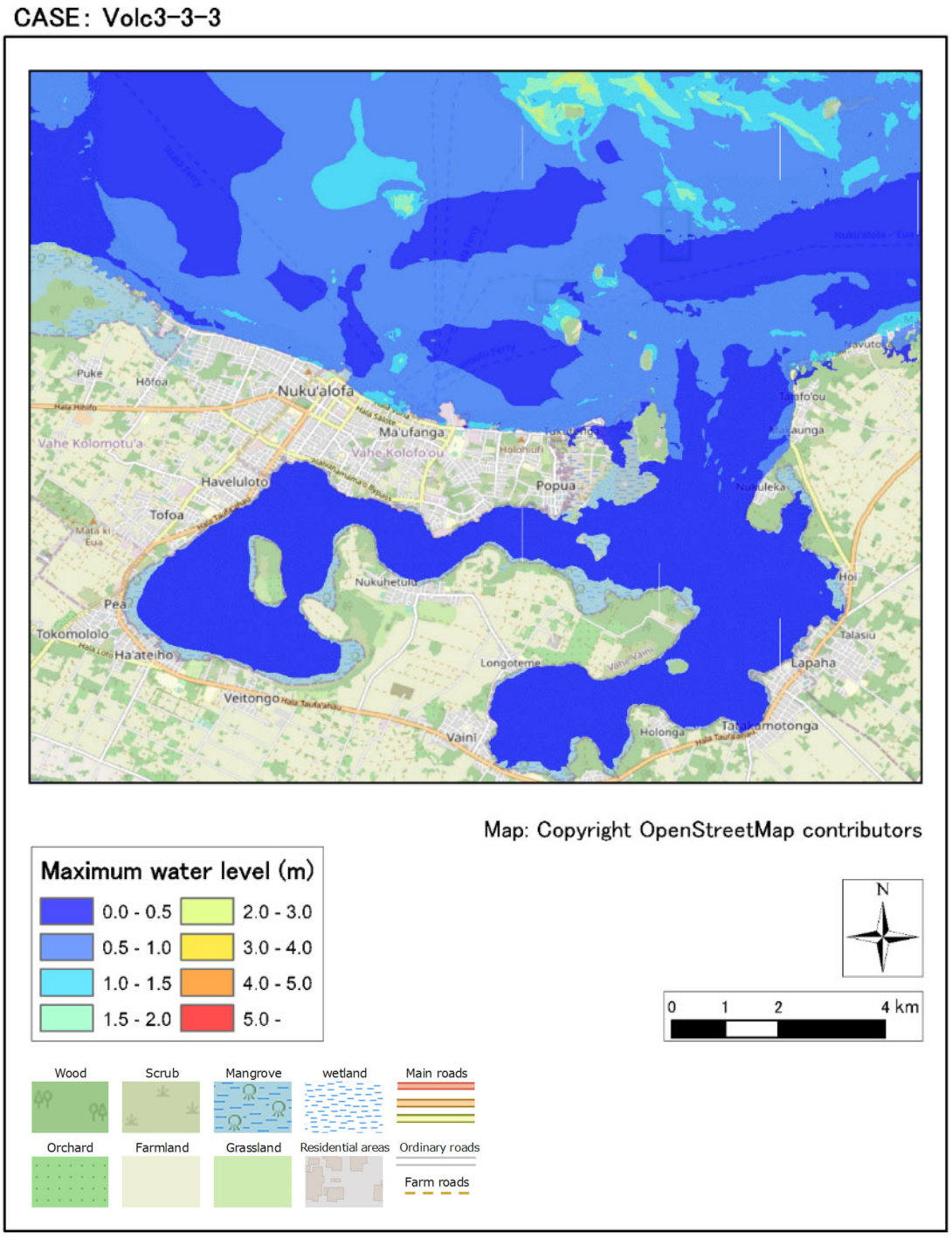
Source: JICA Study Team

Figure 2.6.268 Max Water Level Distribution (Unnamed1, H=90m Raised Seawall M.S.L.+4.0m)



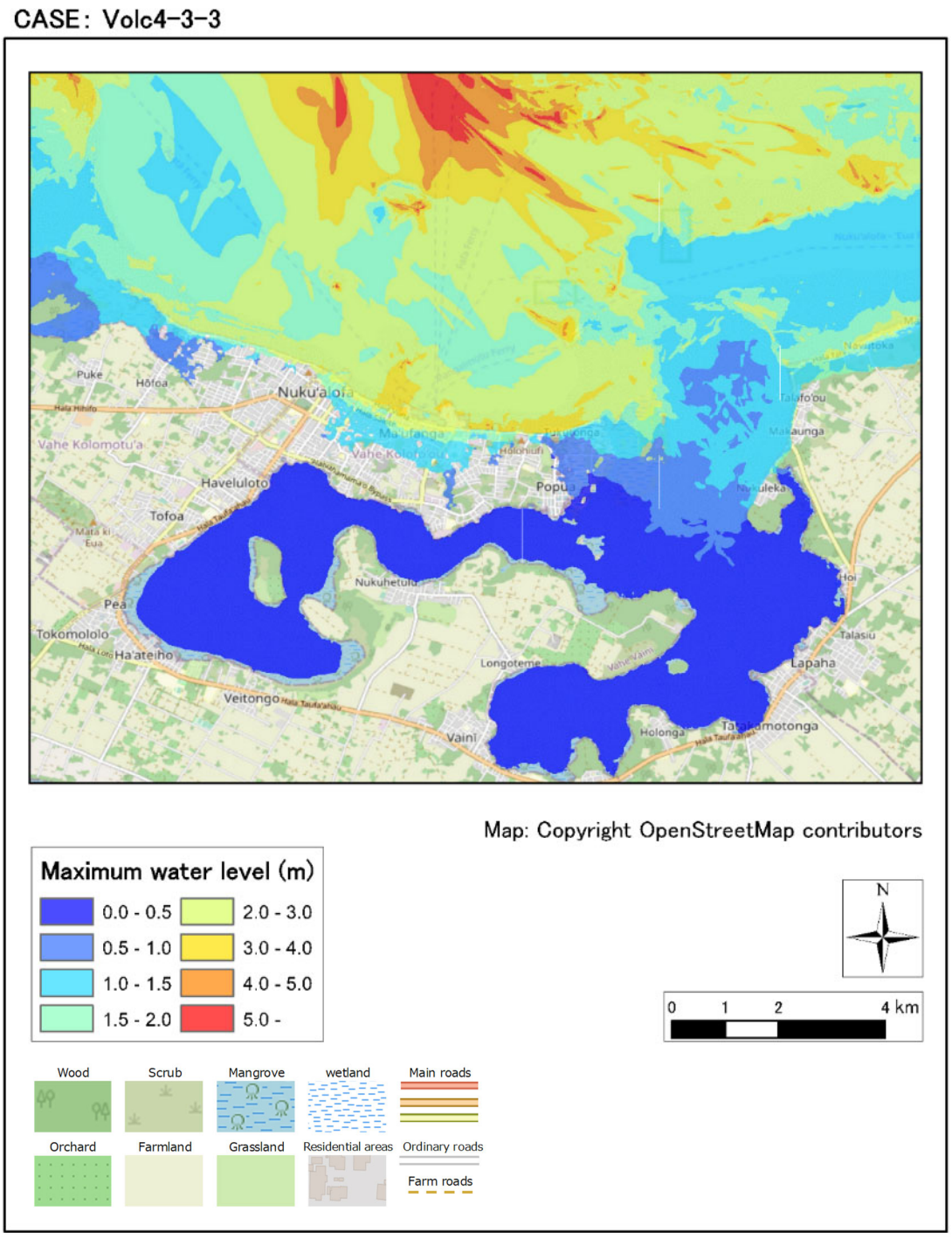
Source: JICA Study Team

Figure 2.6.269 Max Water Level Distribution (HomeReef, H=90m Raised Seawall M.S.L.+4.0m)



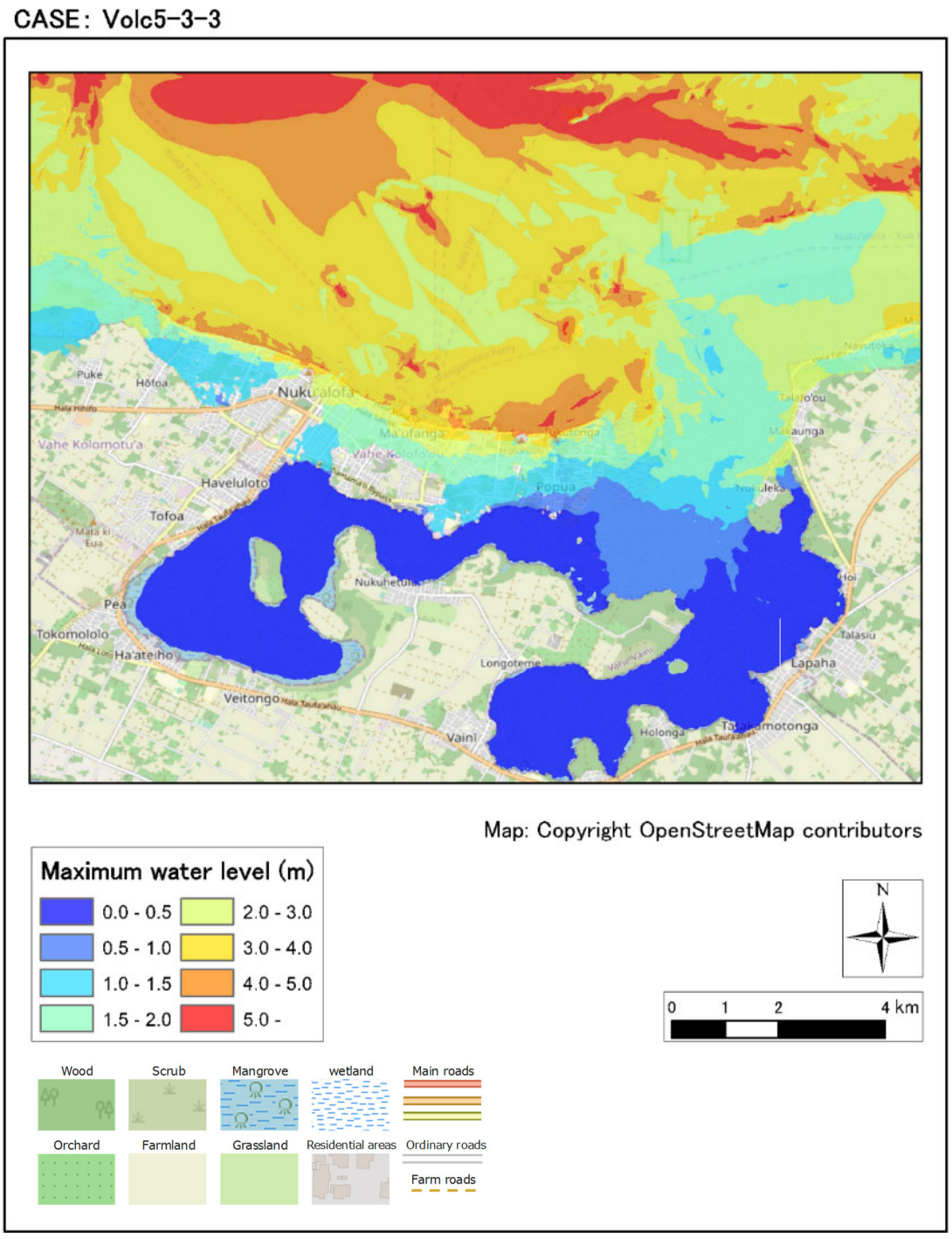
Source: JICA Study Team

Figure 2.6.270 Max Water Level Distribution (Lateiki, H=90m Raised Seawall M.S.L.+4.0m)



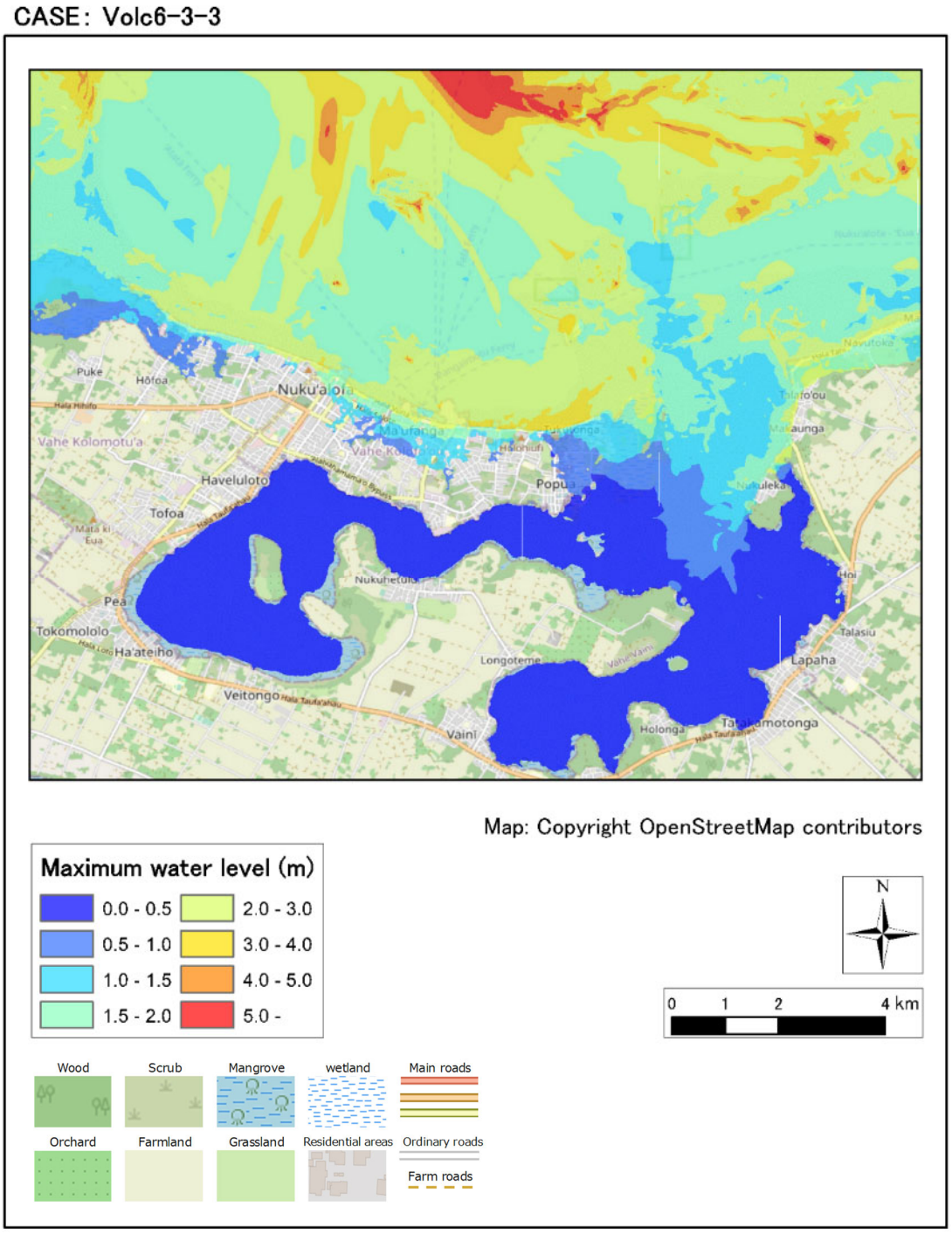
Source: JICA Study Team

Figure 2.6.271 Max Water Level Distribution (Fonuafo'ou, H=90m Raised Seawall M.S.L.+4.0m)



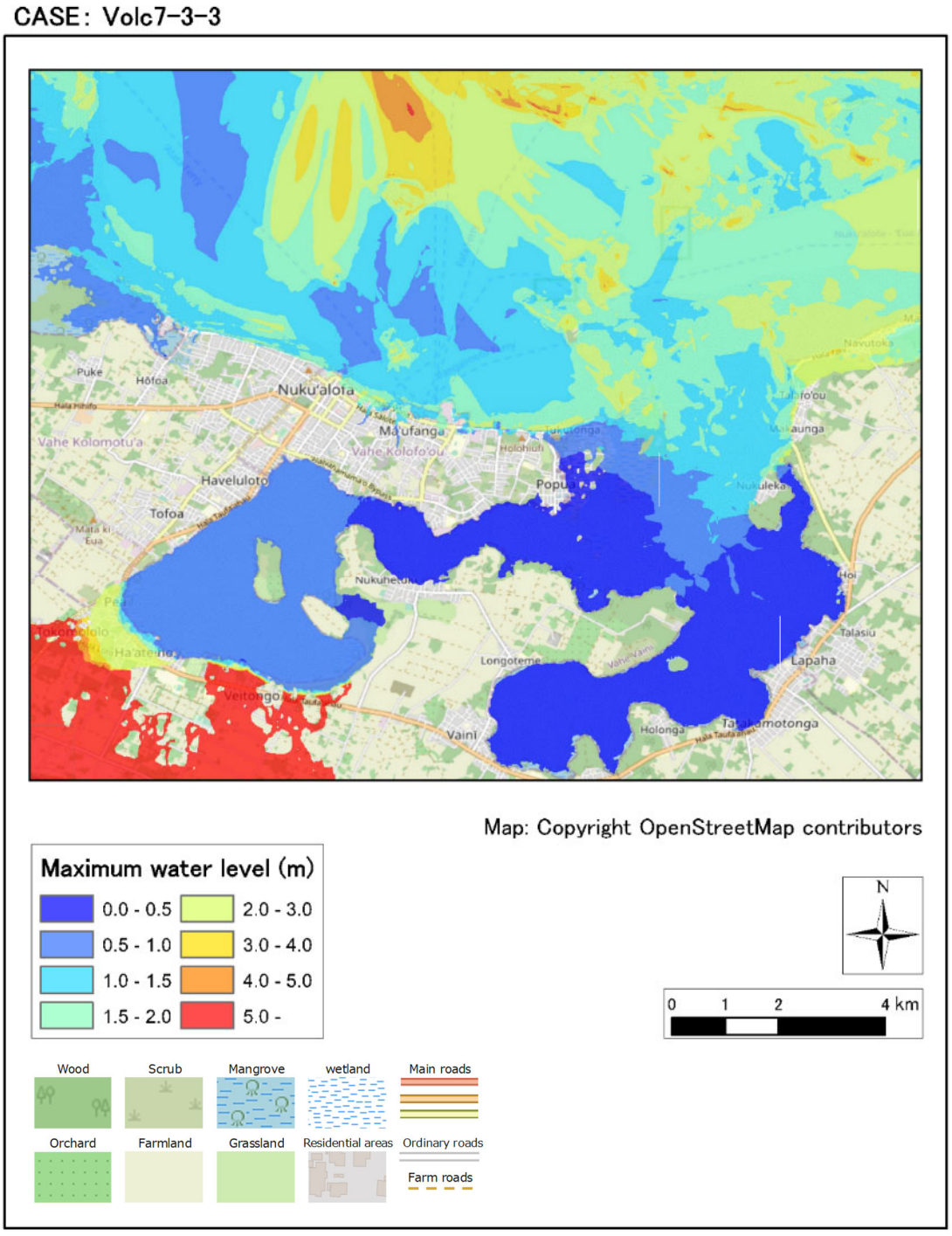
Source: JICA Study Team

Figure 2.6.272 Max Water Level Distribution (Unamed2, H=90m Raised Seawall M.S.L.+4.0m)



Source: JICA Study Team

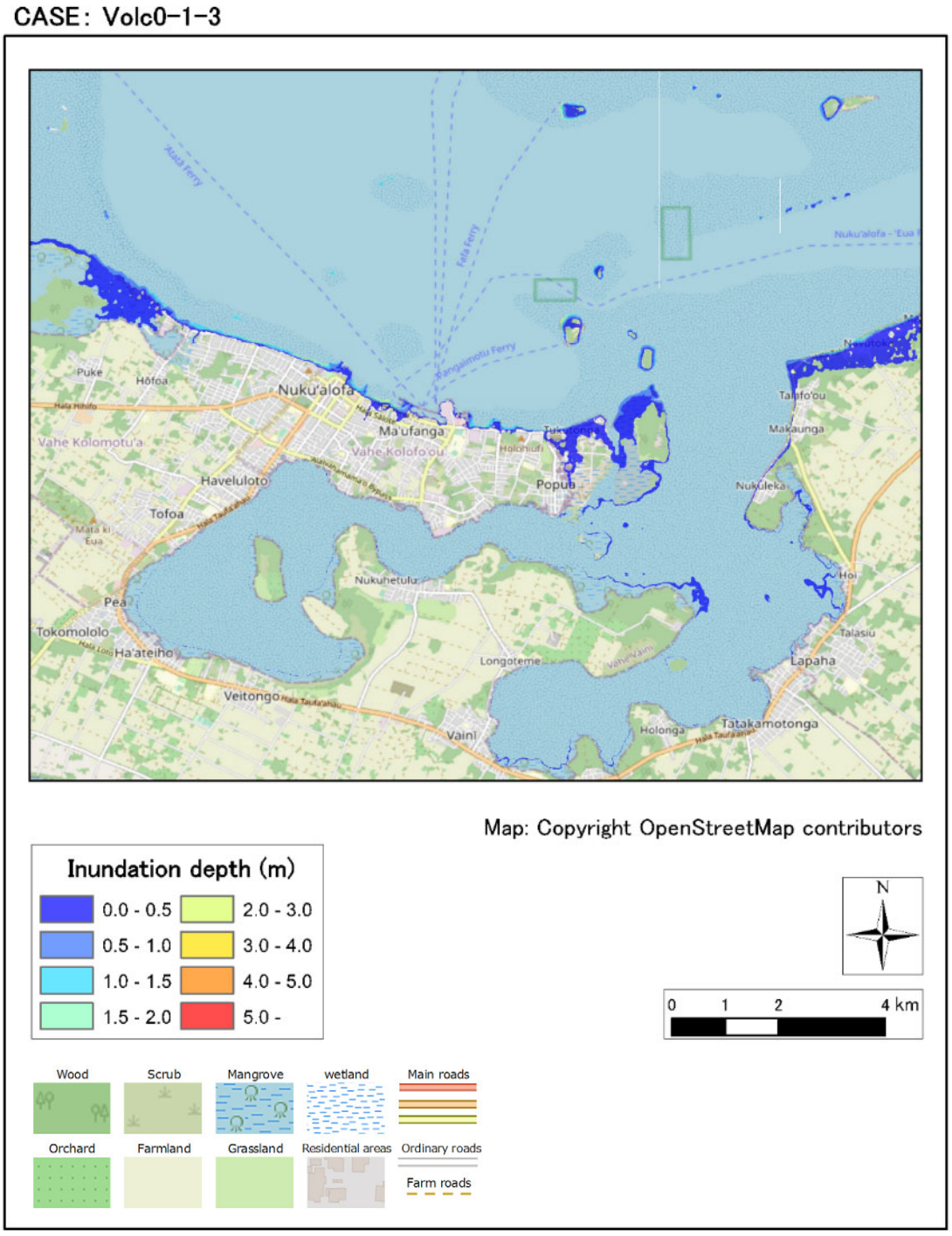
Figure 2.6.273 Max Water Level Distribution (Unamed3, H=90m Raised Seawall M.S.L.+4.0m)



Source: JICA Study Team

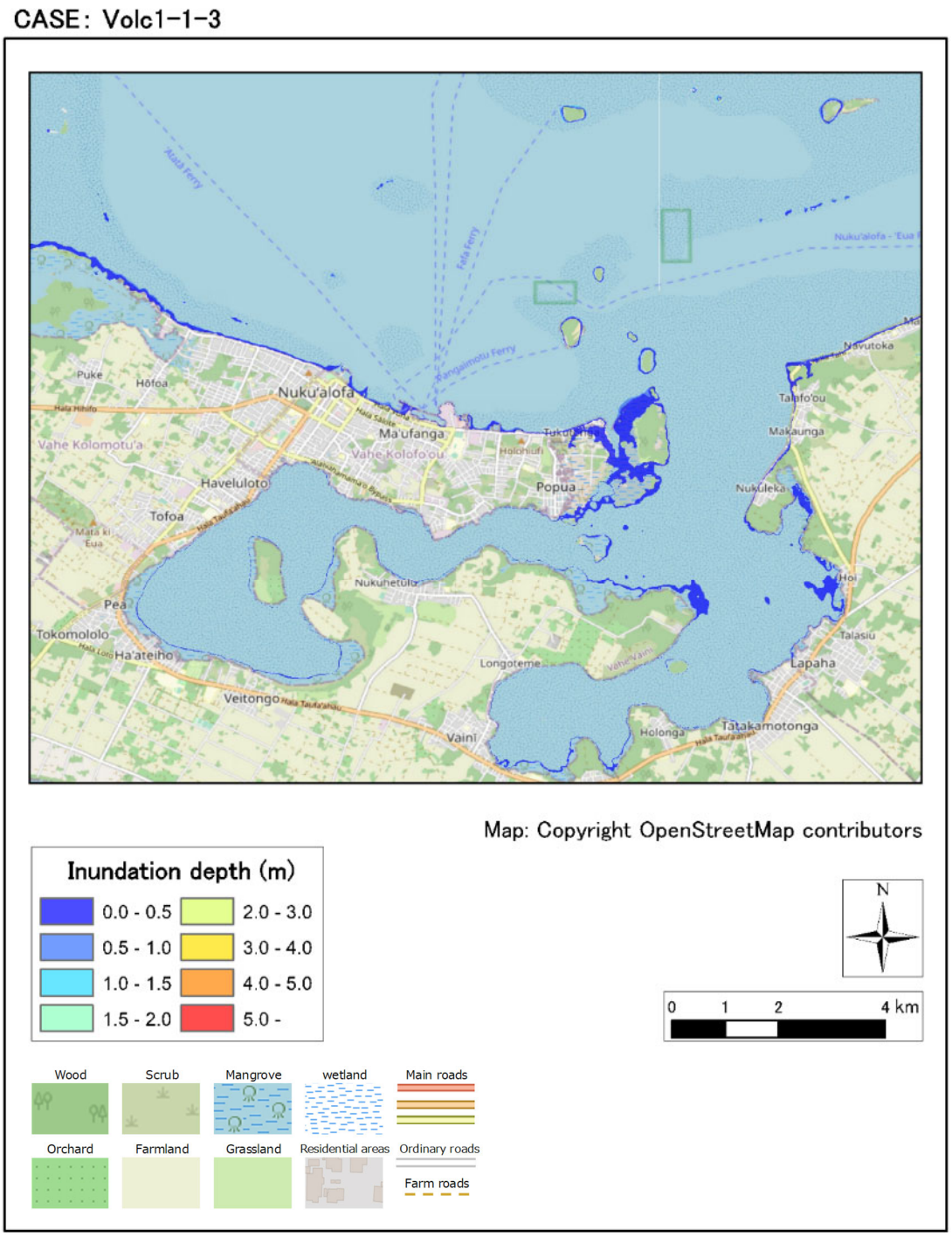
Figure 2.6.274 Max Water Level Distribution (Unamed4, H=90m Raised Seawall M.S.L.+4.0m)

b. Max inundation depth distribution diagram



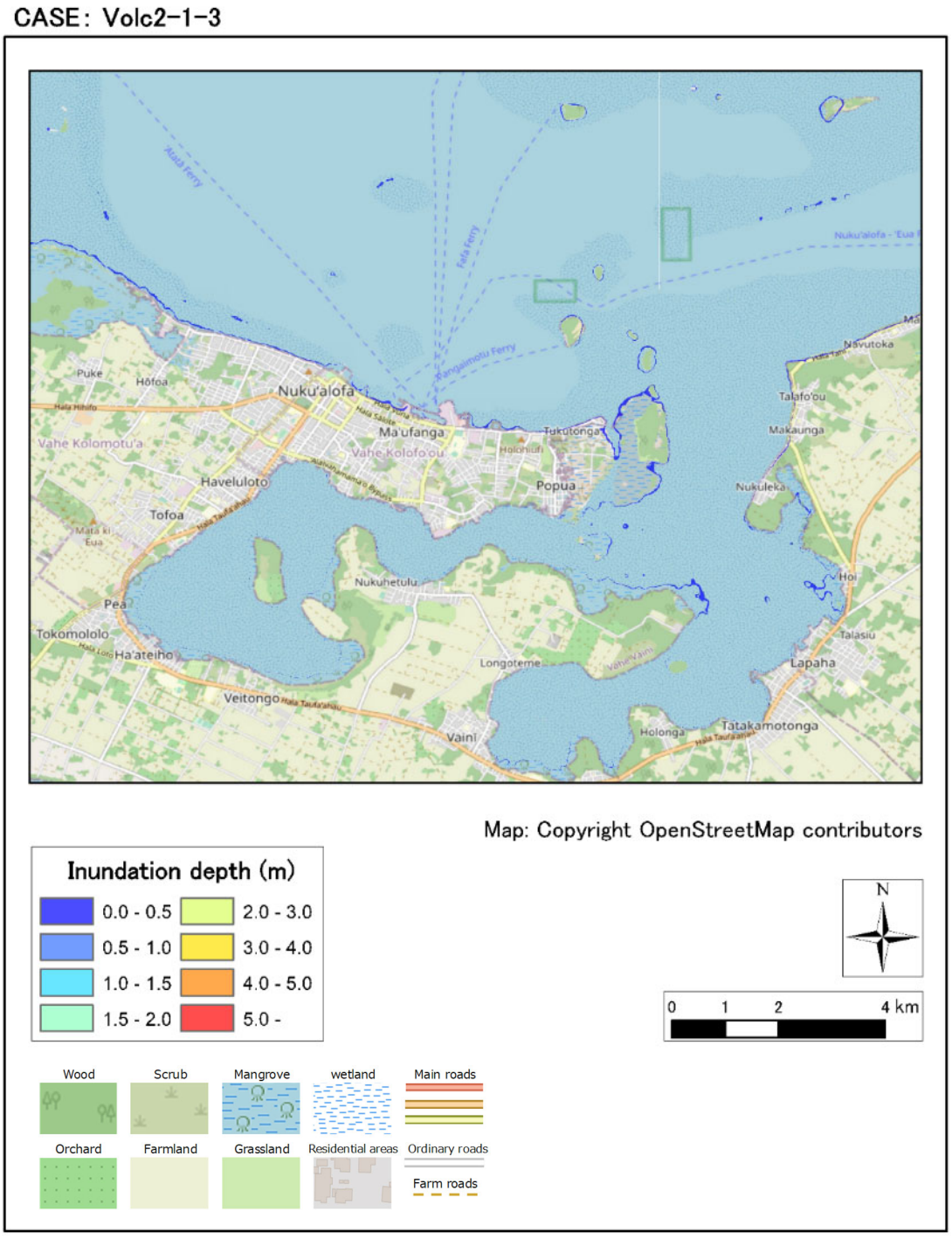
Source: JICA Study Team

Figure 2.6.275 Max inundation depth distribution (Hunga Tonga-Hunga Ha'pai, H=30m Raised Seawall M.S.L.+4.0m)



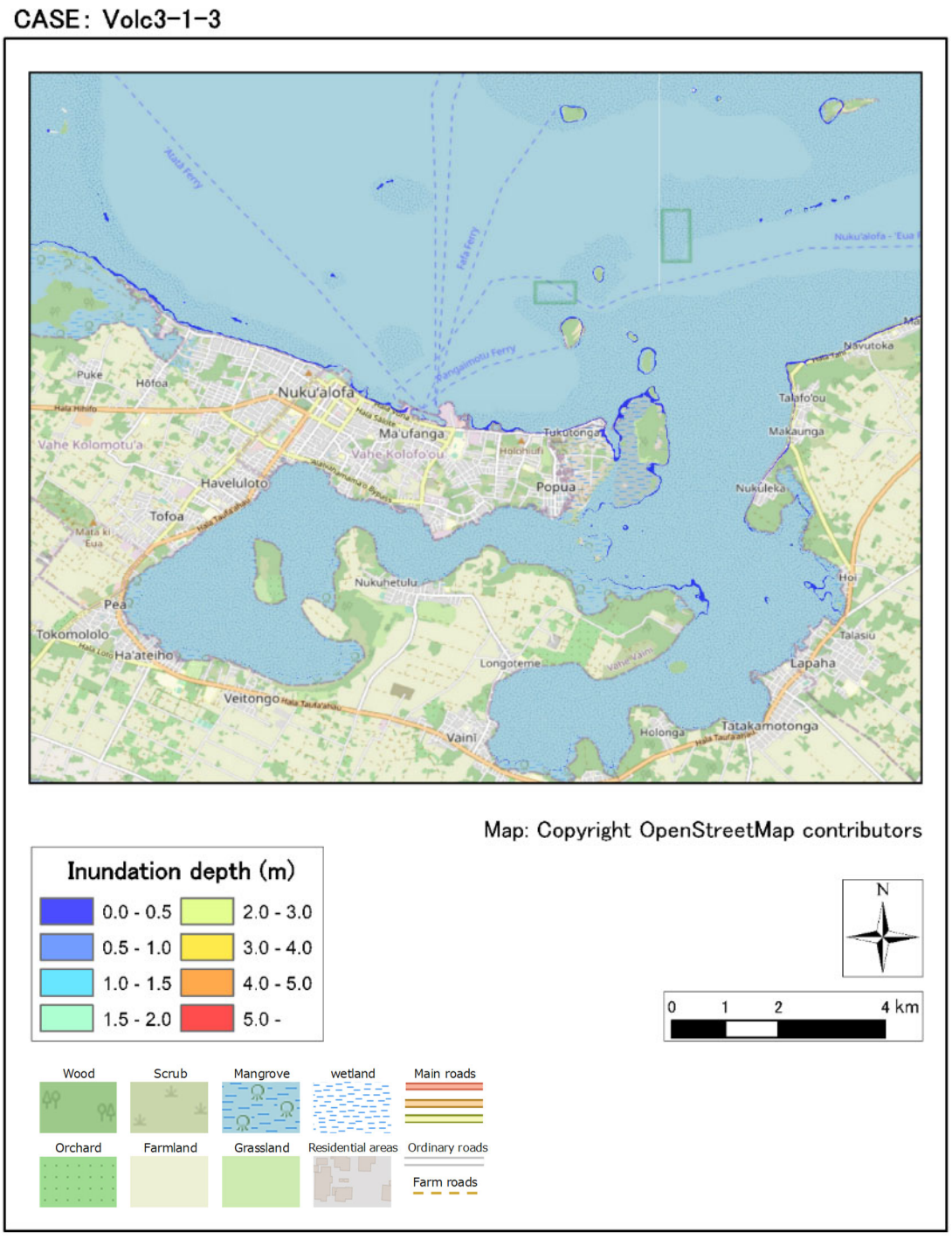
Source: JICA Study Team

Figure 2.6.276 Max inundation depth distribution (Unnamed1, H=30m Raised Seawall M.S.L.+4.0m)



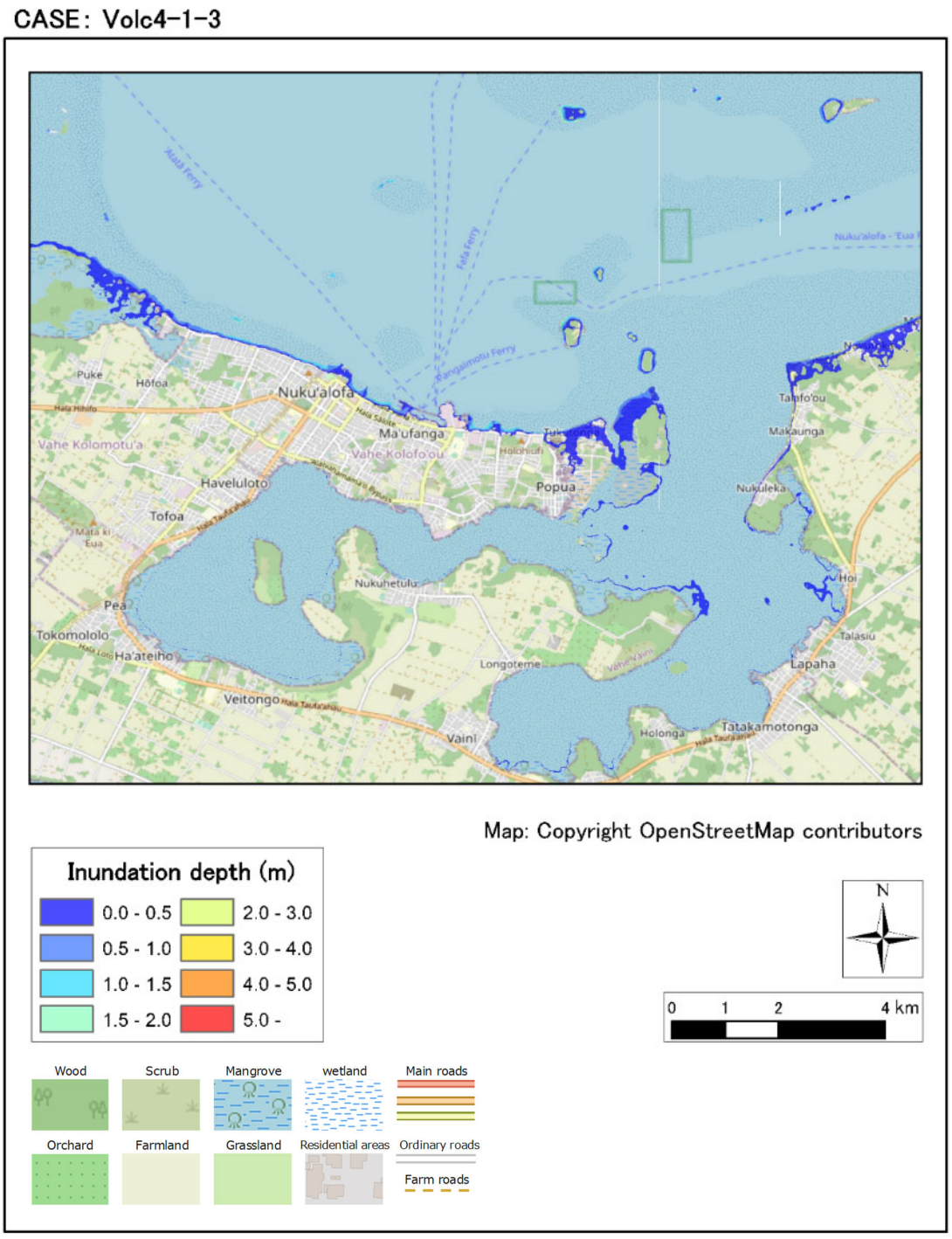
Source: JICA Study Team

Figure 2.6.277 Max inundation depth distribution (HomeReef, H=30m Raised Seawall M.S.L.+4.0m)



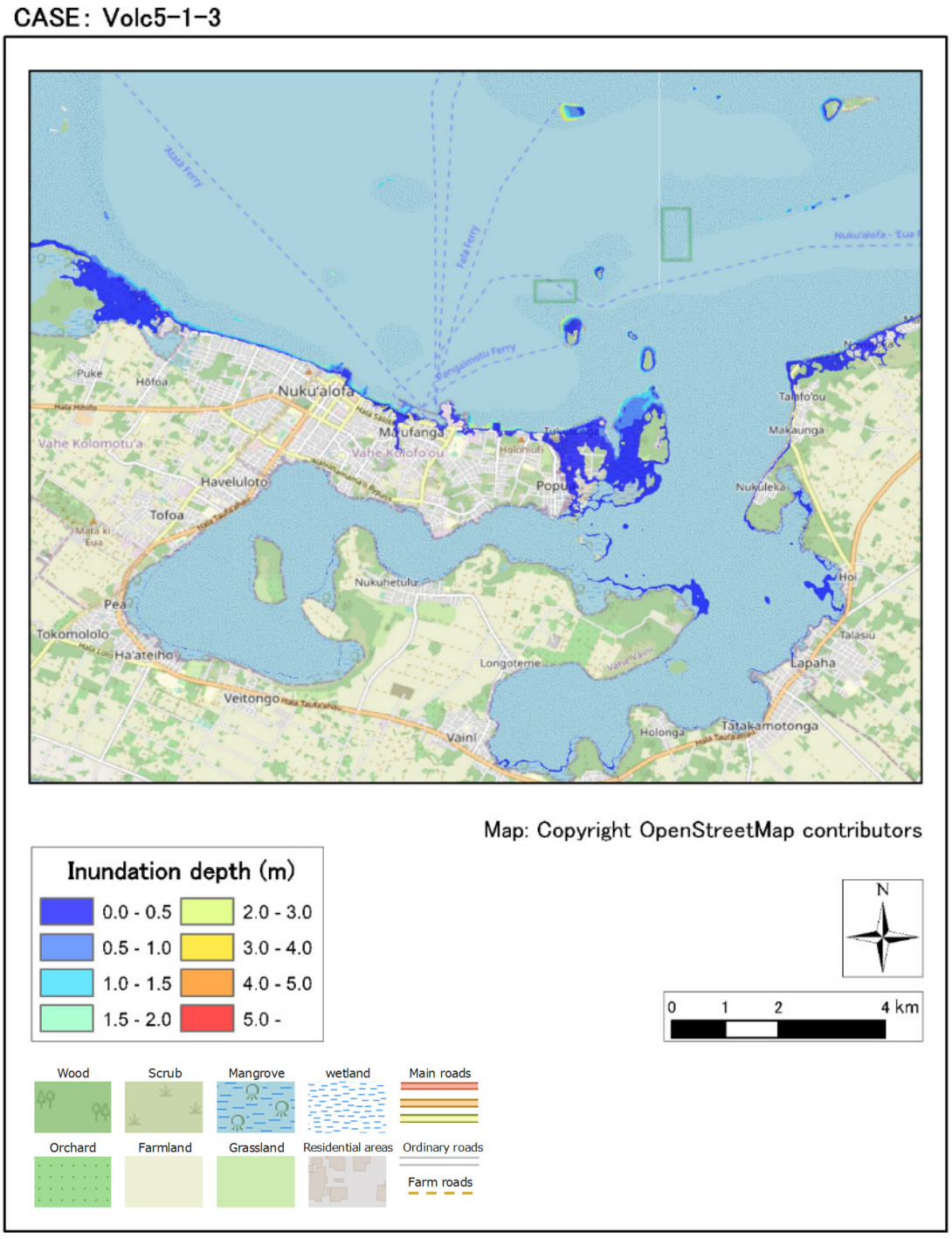
Source: JICA Study Team

Figure 2.6.278 Max inundation depth distribution (Lateiki, H=30m Raised Seawall M.S.L.+4.0m)



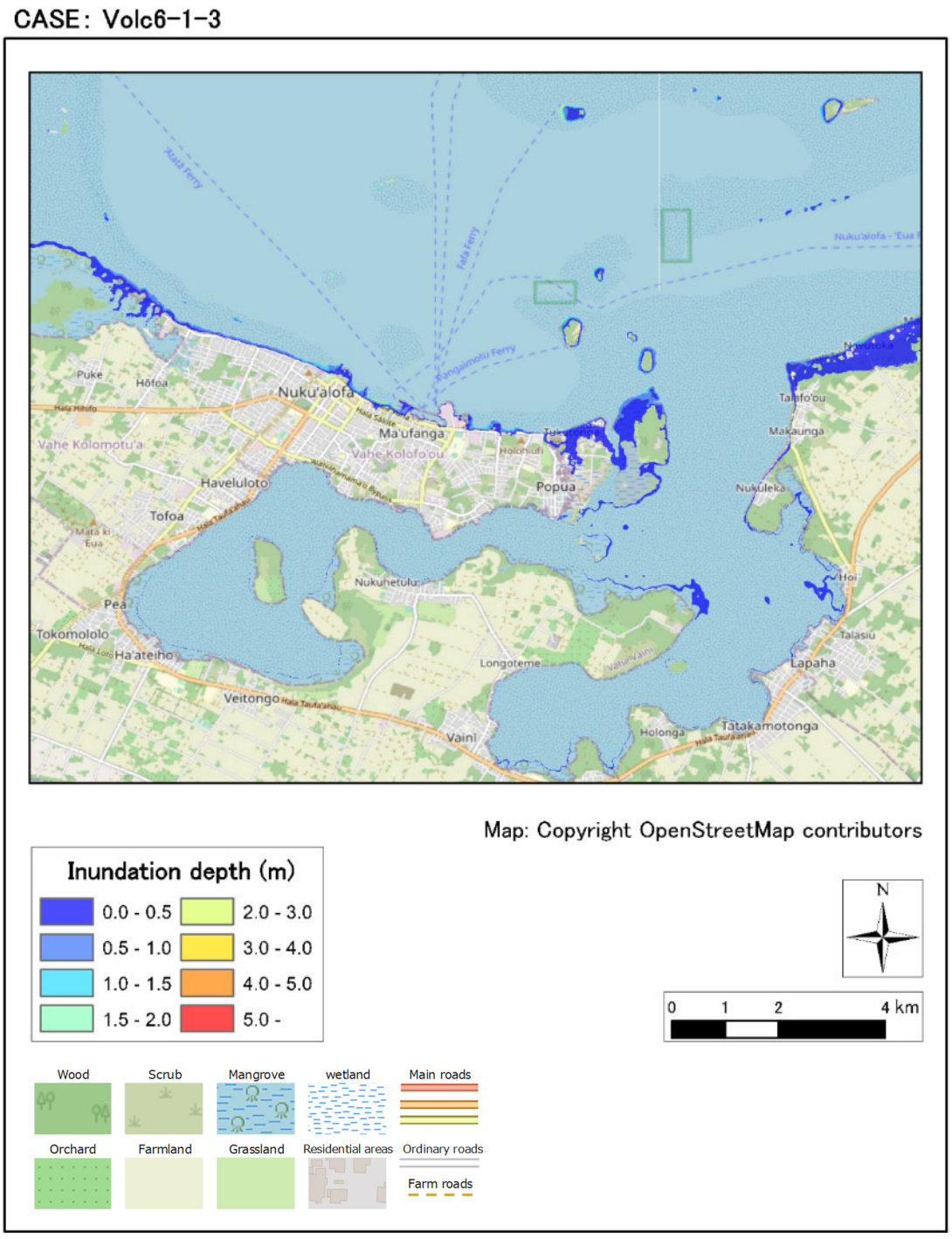
Source: JICA Study Team

Figure 2.6.279 Max inundation depth distribution (Fonuafo'ou H=30m Raised Seawall M.S.L.+4.0m)



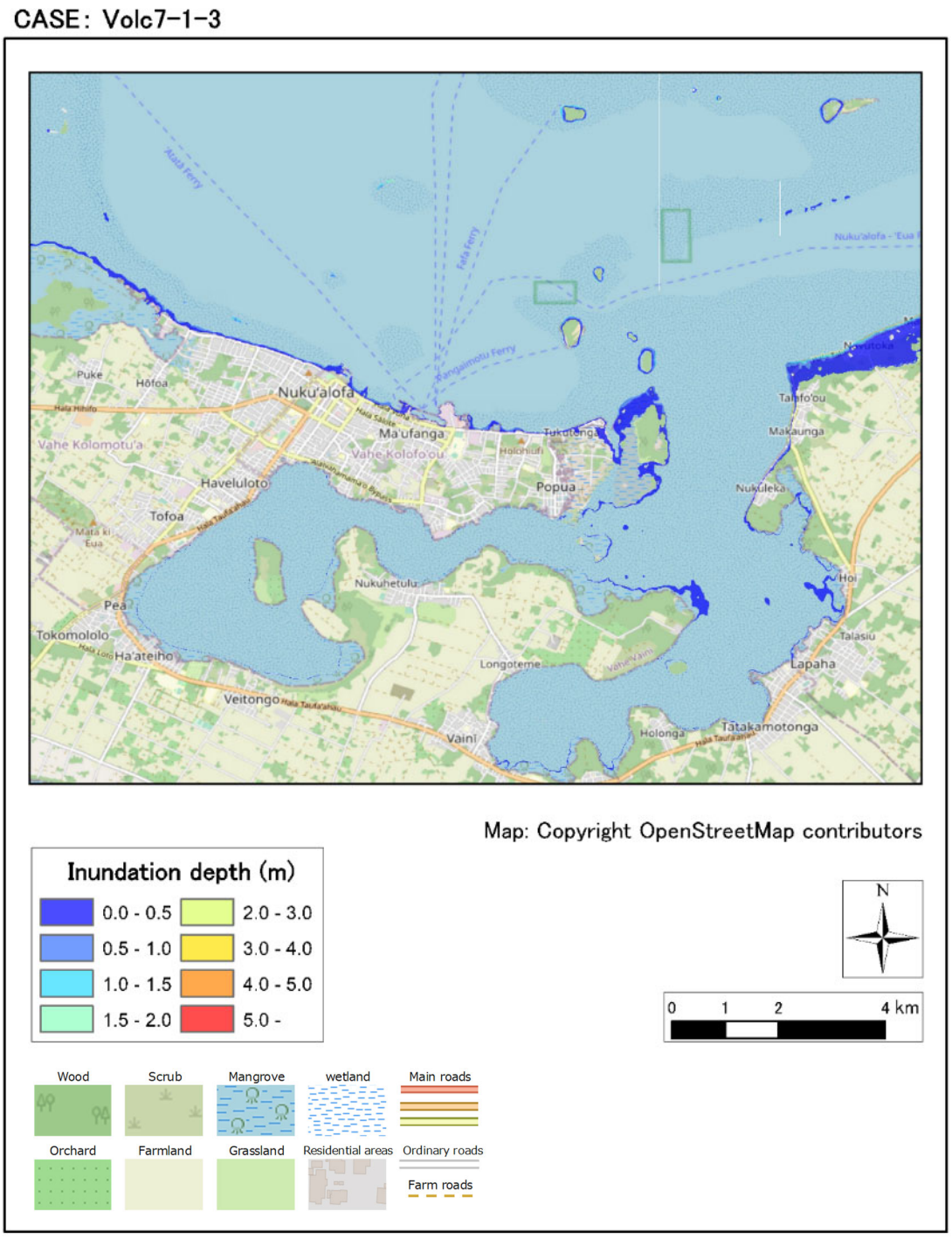
Source: JICA Study Team

Figure 2.6.280 Max inundation depth distribution (Unamed2, H=30m Raised Seawall M.S.L.+4.0m)



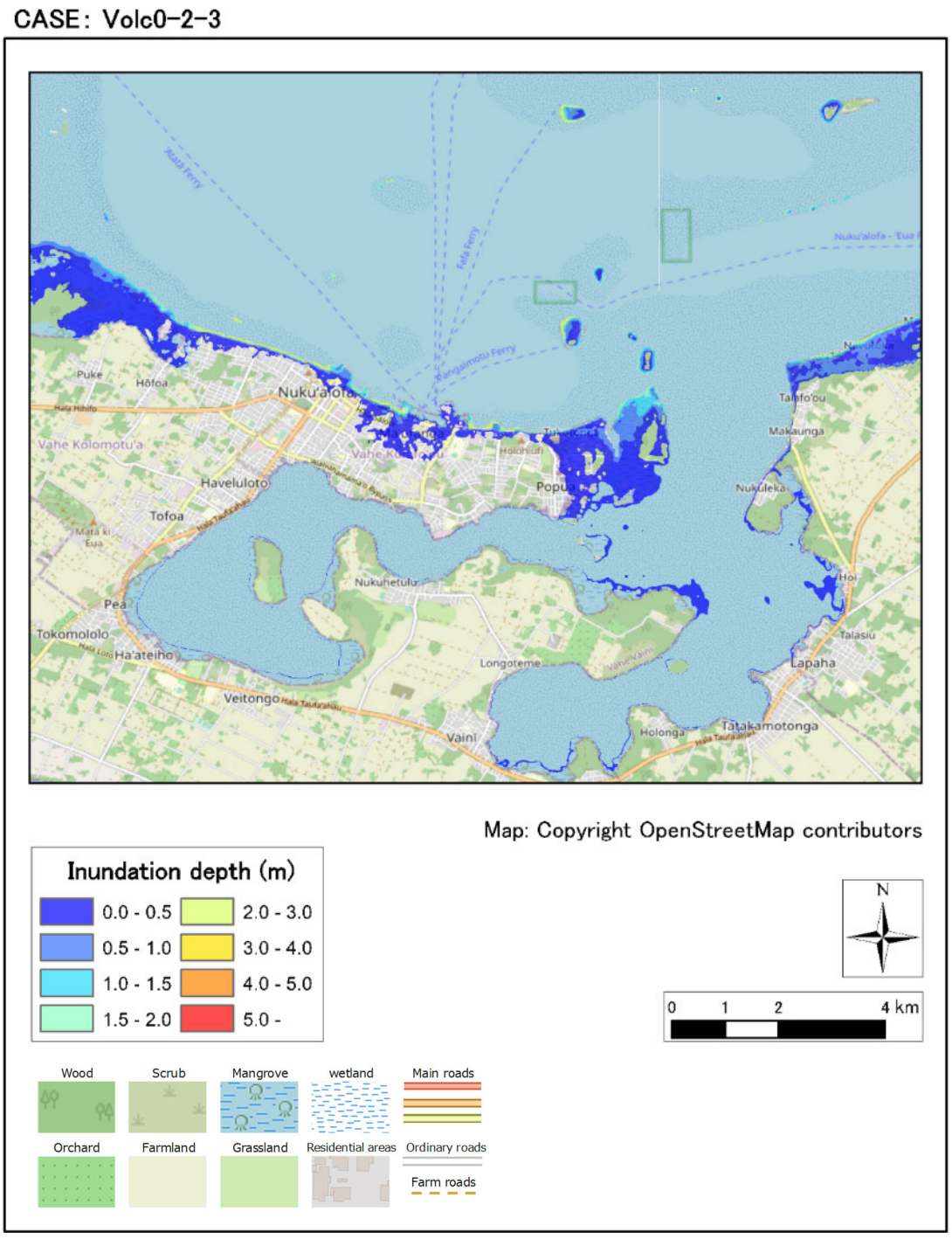
Source: JICA Study Team

Figure 2.6.281 Max inundation depth distribution (Unamed3, H=30m Raised Seawall M.S.L.+4.0m)



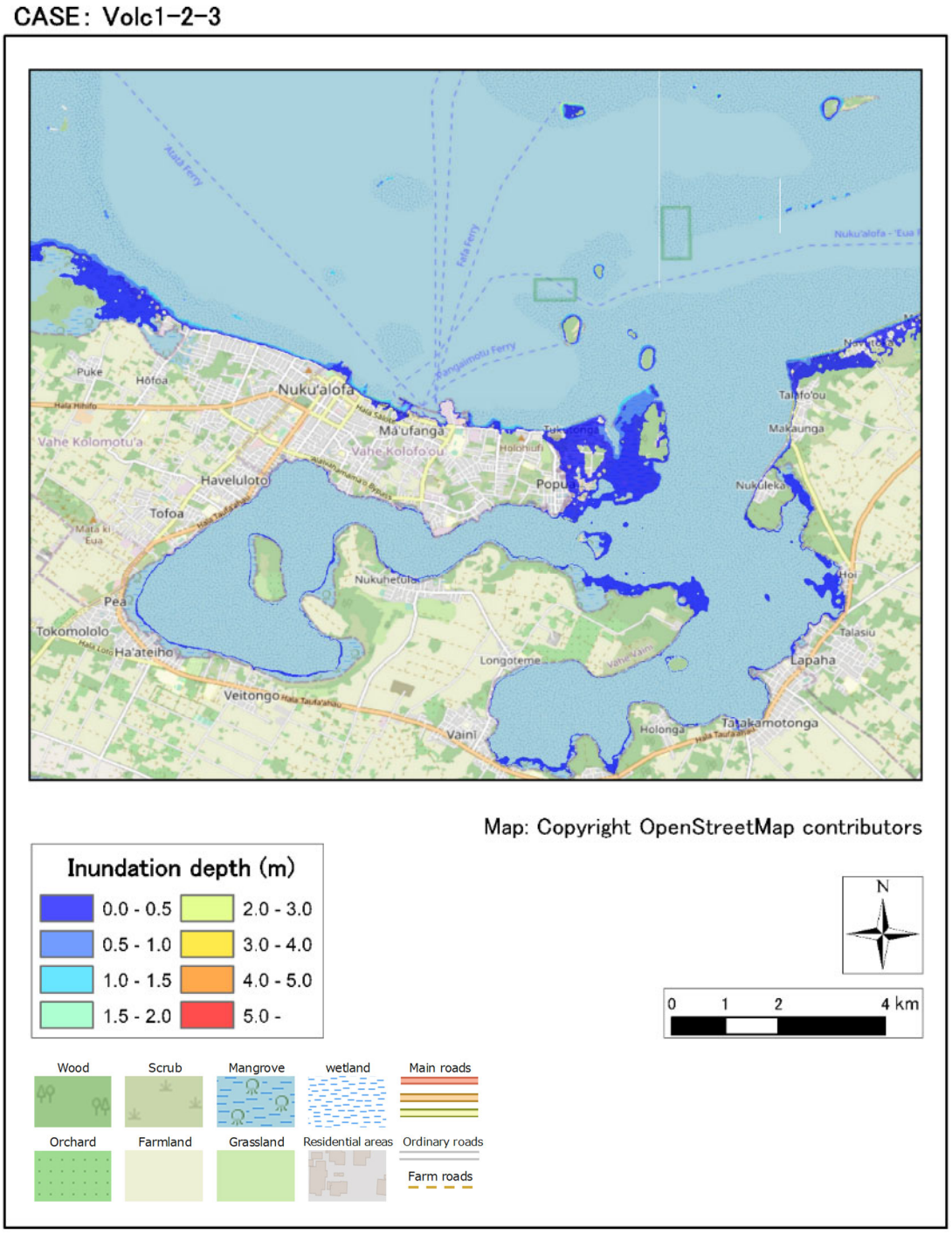
Source: JICA Study Team

Figure 2.6.282 Max inundation depth distribution (Unamed4, H=30m Raised Seawall M.S.L.+4.0m)



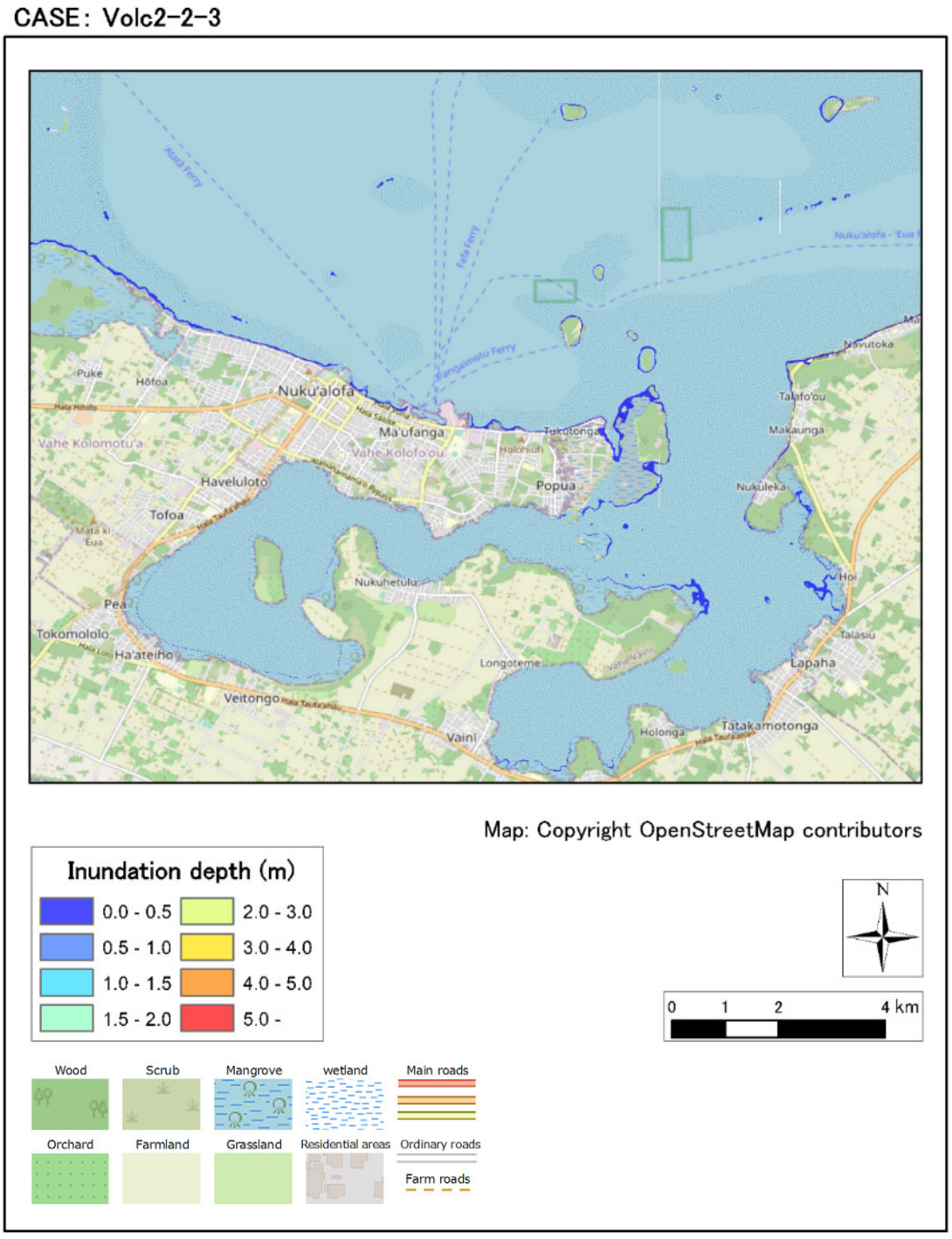
Source: JICA Study Team

Figure 2.6.283 Max inundation depth distribution (Hunga Tonga-Hunga Ha'pai, H=60m Raised Seawall M.S.L.+4.0m)



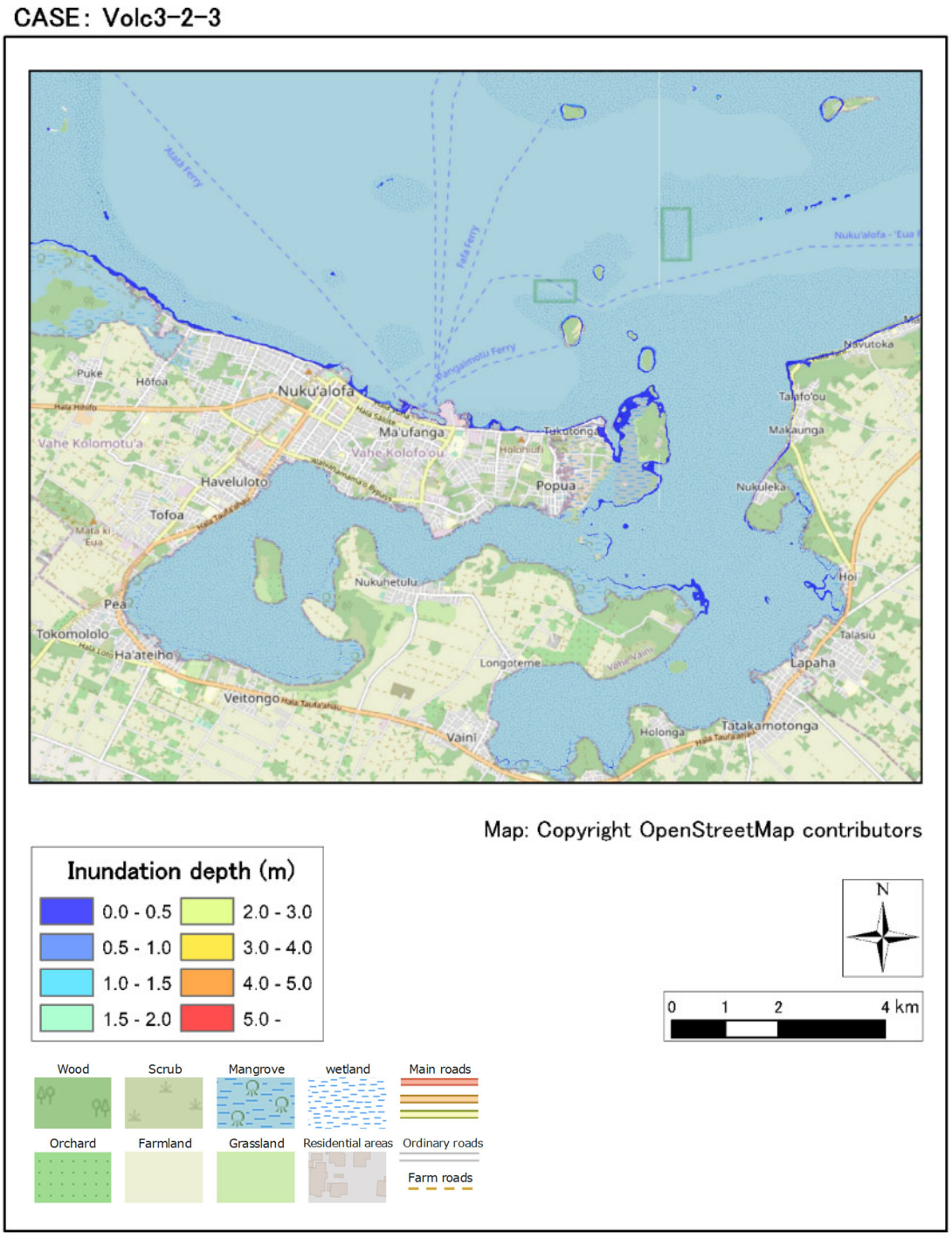
Source: JICA Study Team

Figure 2.6.284 Max inundation depth distribution (Unnamed1, H=60m Raised Seawall M.S.L.+4.0m)



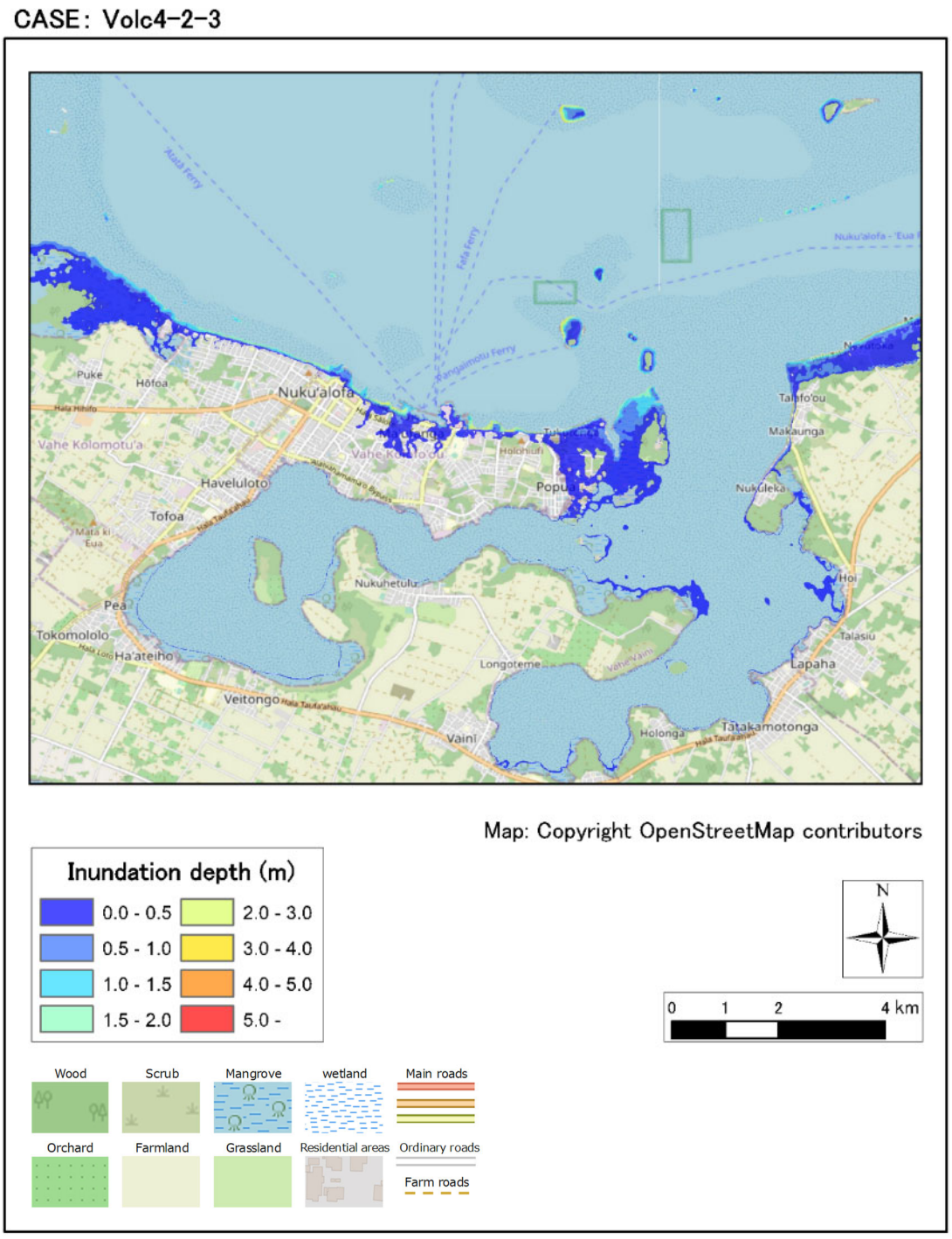
Source: JICA Study Team

Figure 2.6.285 Max inundation depth distribution (HomeReef, H=60m Raised Seawall M.S.L.+4.0m)



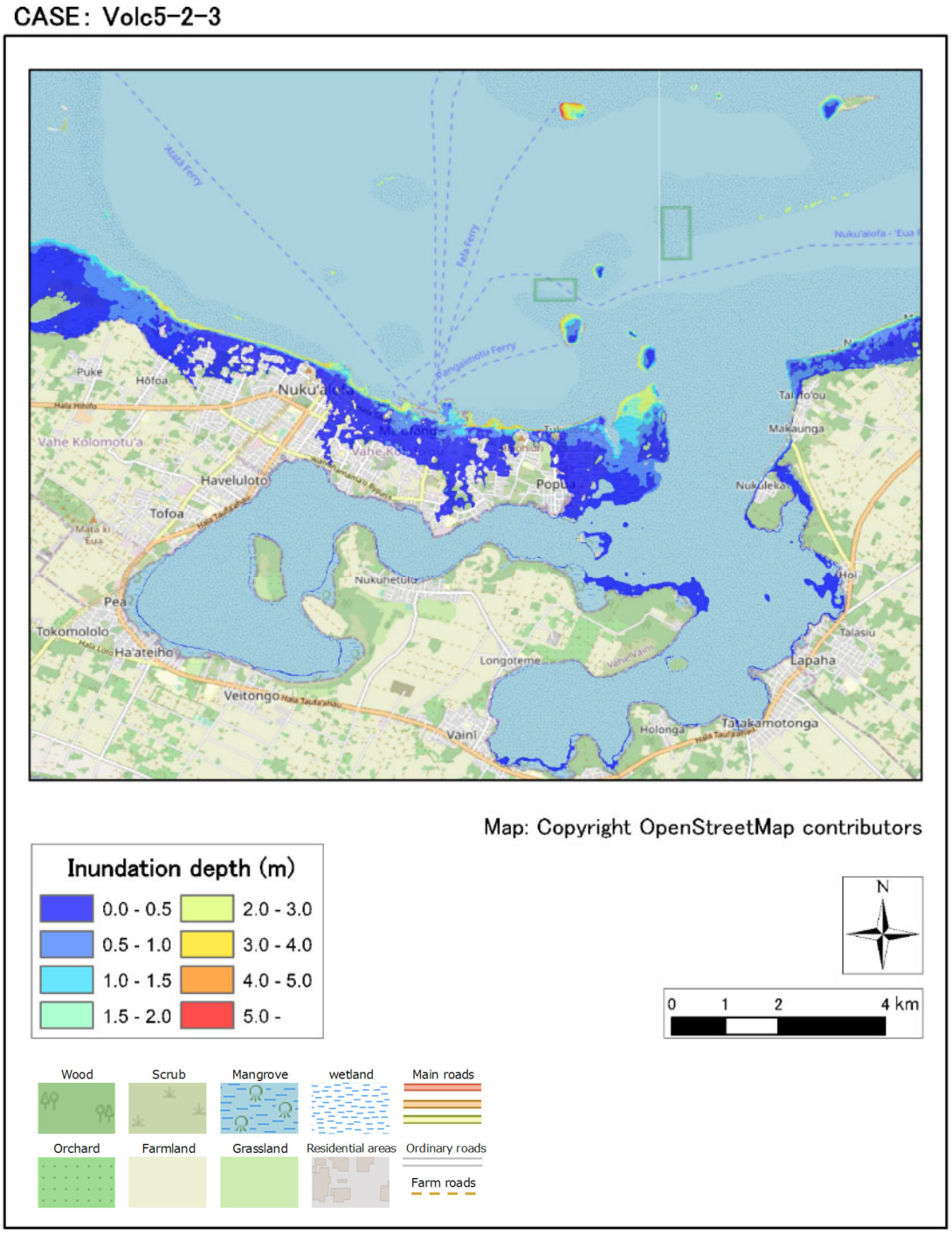
Source: JICA Study Team

Figure 2.6.286 Max inundation depth distribution (Lateiki, H=60m Raised Seawall M.S.L.+4.0m)



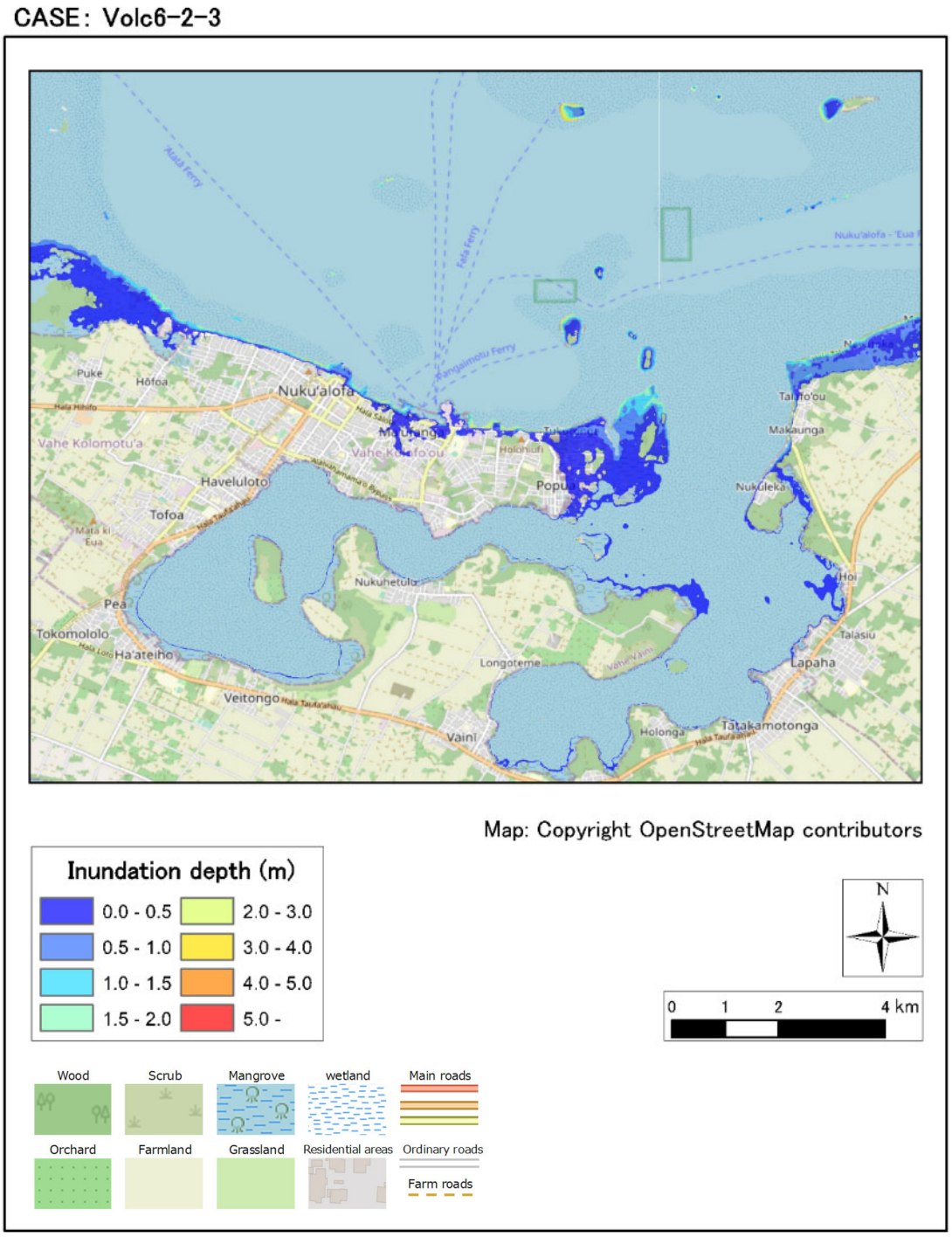
Source: JICA Study Team

Figure 2.6.287 Max inundation depth distribution (Fonuafo'ou, H=60m Raised Seawall M.S.L.+4.0m)



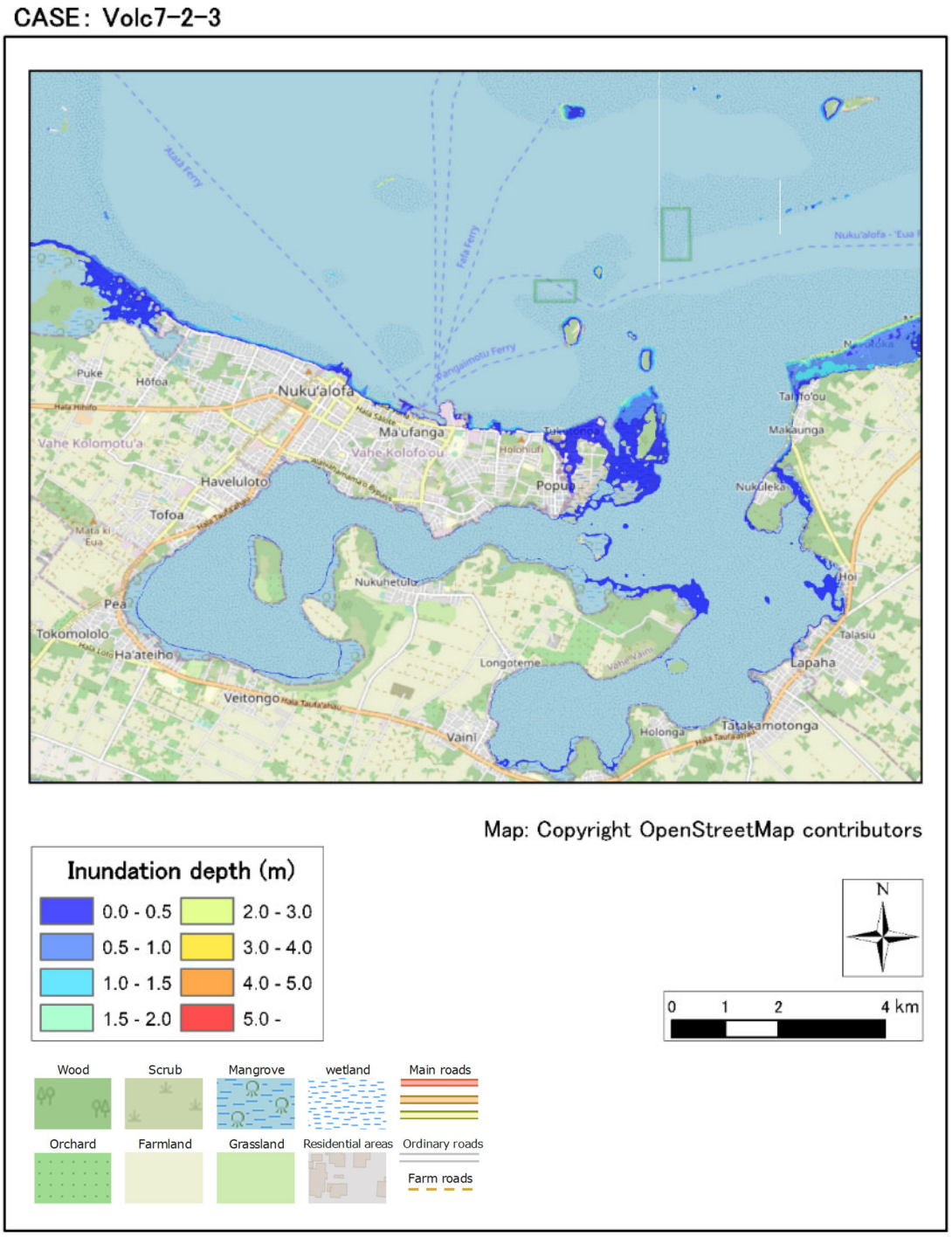
Source: JICA Study Team

Figure 2.6.288 Max inundation depth distribution (Unamed2, H=60m Raised Seawall M.S.L.+4.0m)



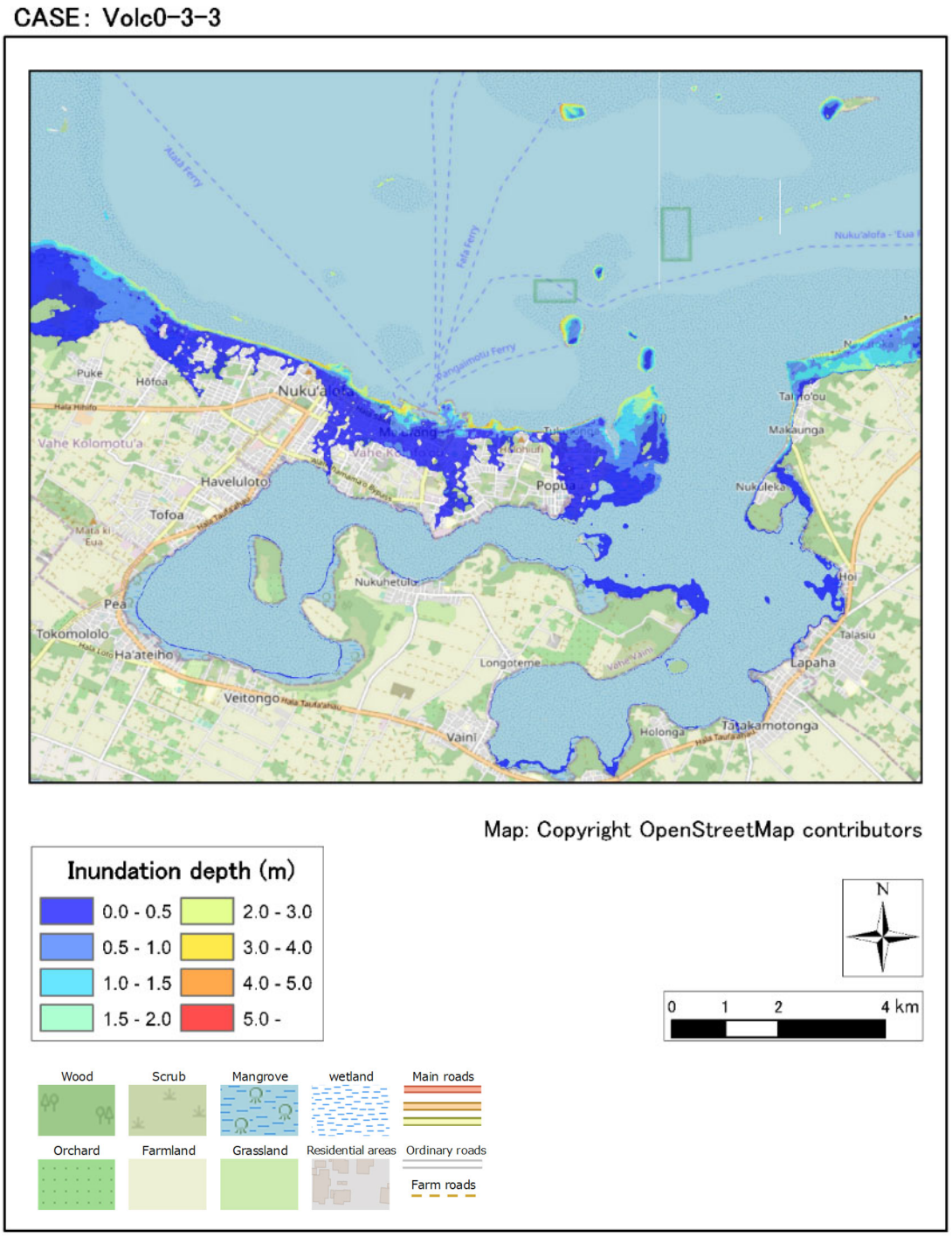
Source: JICA Study Team

Figure 2.6.289 Max inundation depth distribution (Unamed3, H=60m Raised Seawall M.S.L.+4.0m)



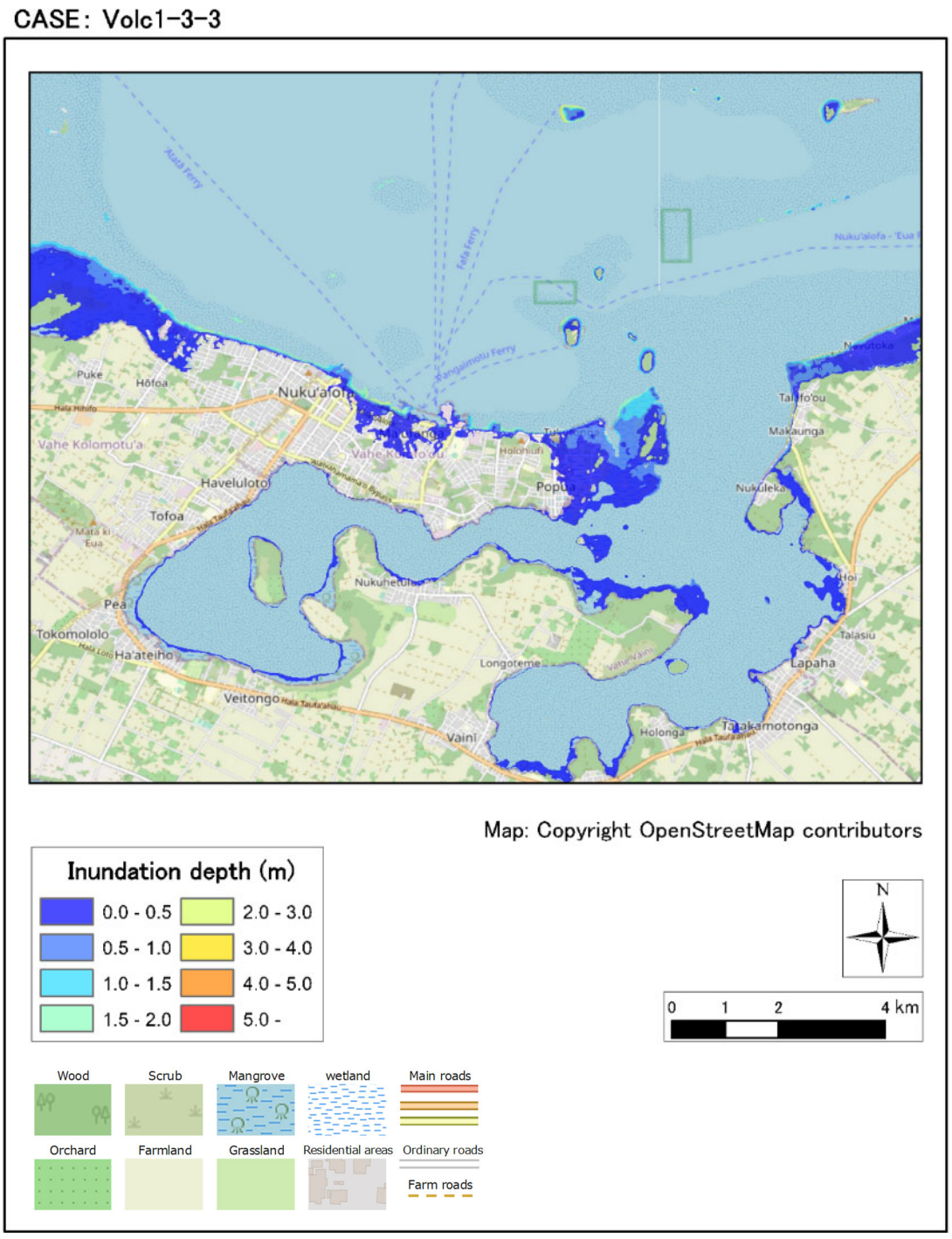
Source: JICA Study Team

Figure 2.6.290 Max inundation depth distribution (Unamed4, H=60m Raised Seawall M.S.L.+4.0m)



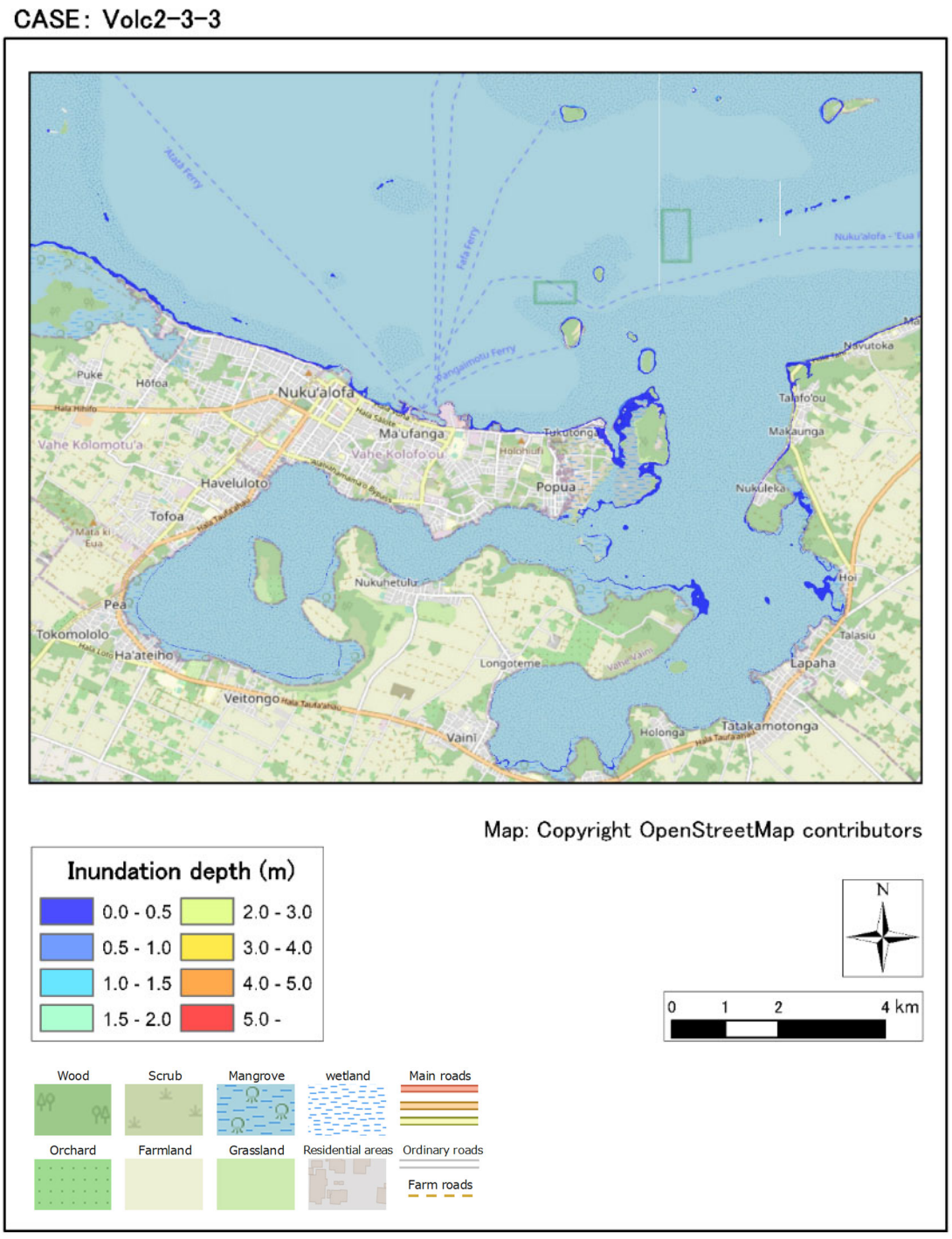
Source: JICA Study Team

Figure 2.6.291 Max inundation depth distribution (Hunga Tonga-Hunga Ha'pai, H=90m Raised Seawall M.S.L.+4.0m)



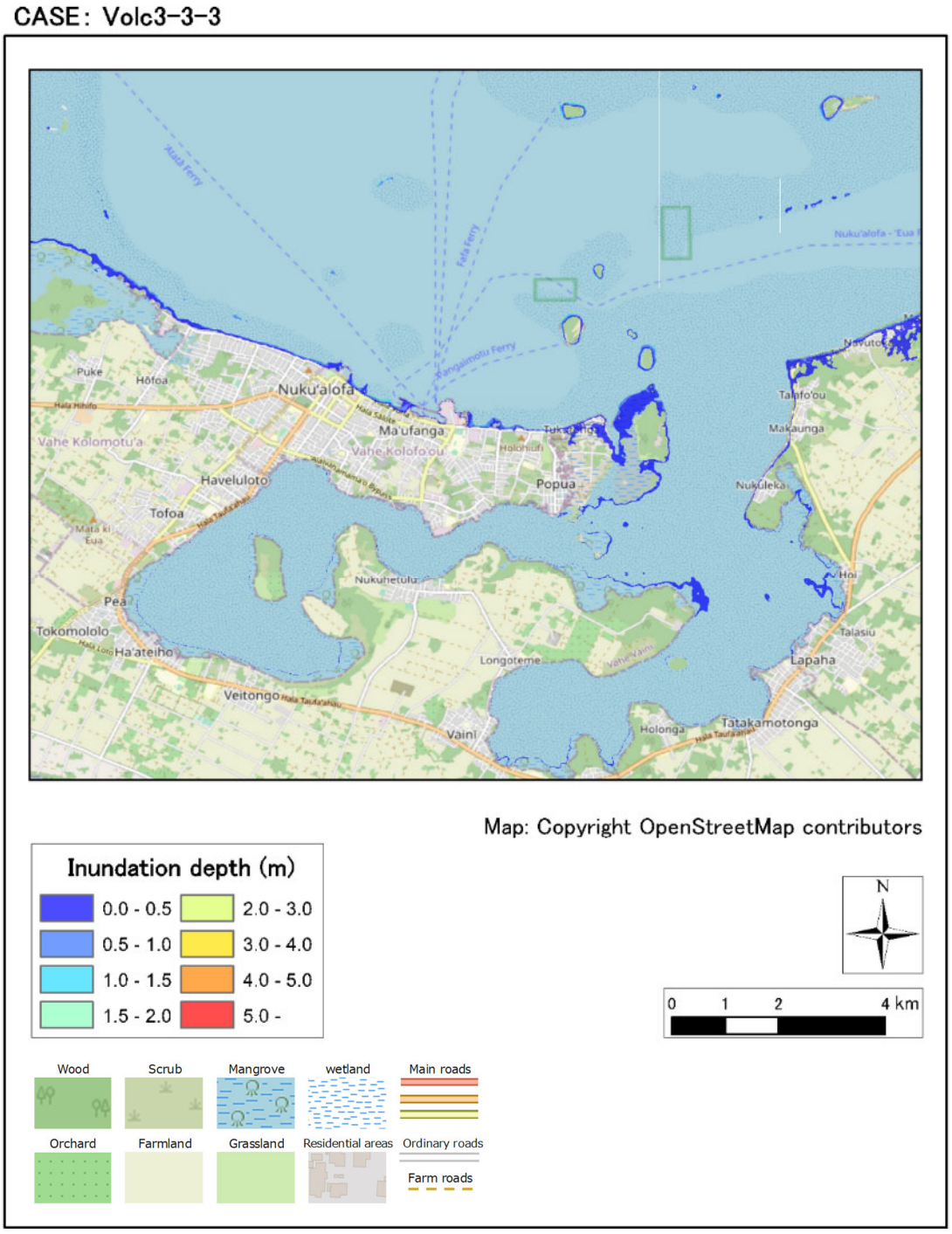
Source: JICA Study Team

Figure 2.6.292 Max inundation depth distribution (Unnamed1, H=90m Raised Seawall M.S.L.+4.0m)



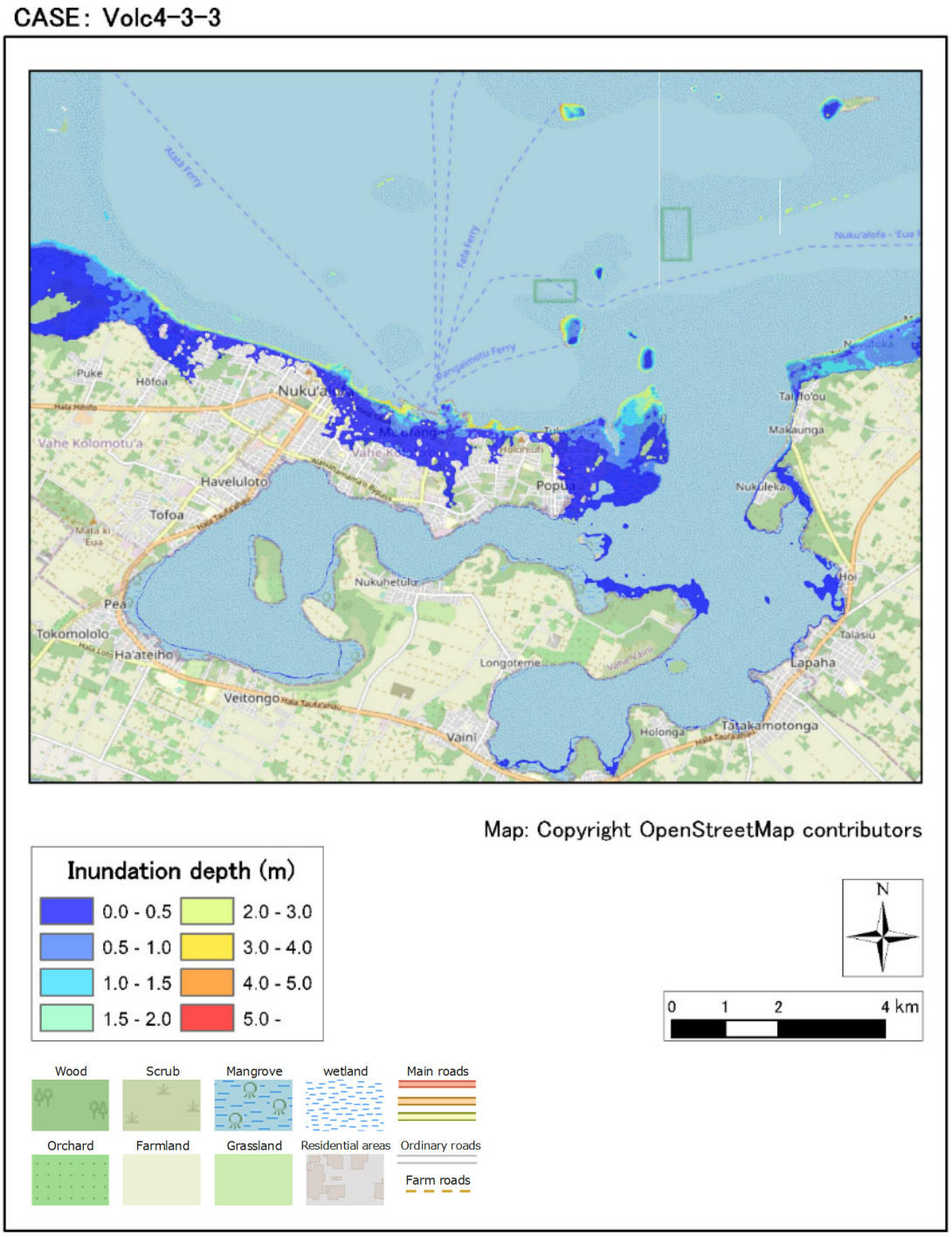
Source: JICA Study Team

Figure 2.6.293 Max inundation depth distribution (HomeReef, H=90m Raised Seawall M.S.L.+4.0m)



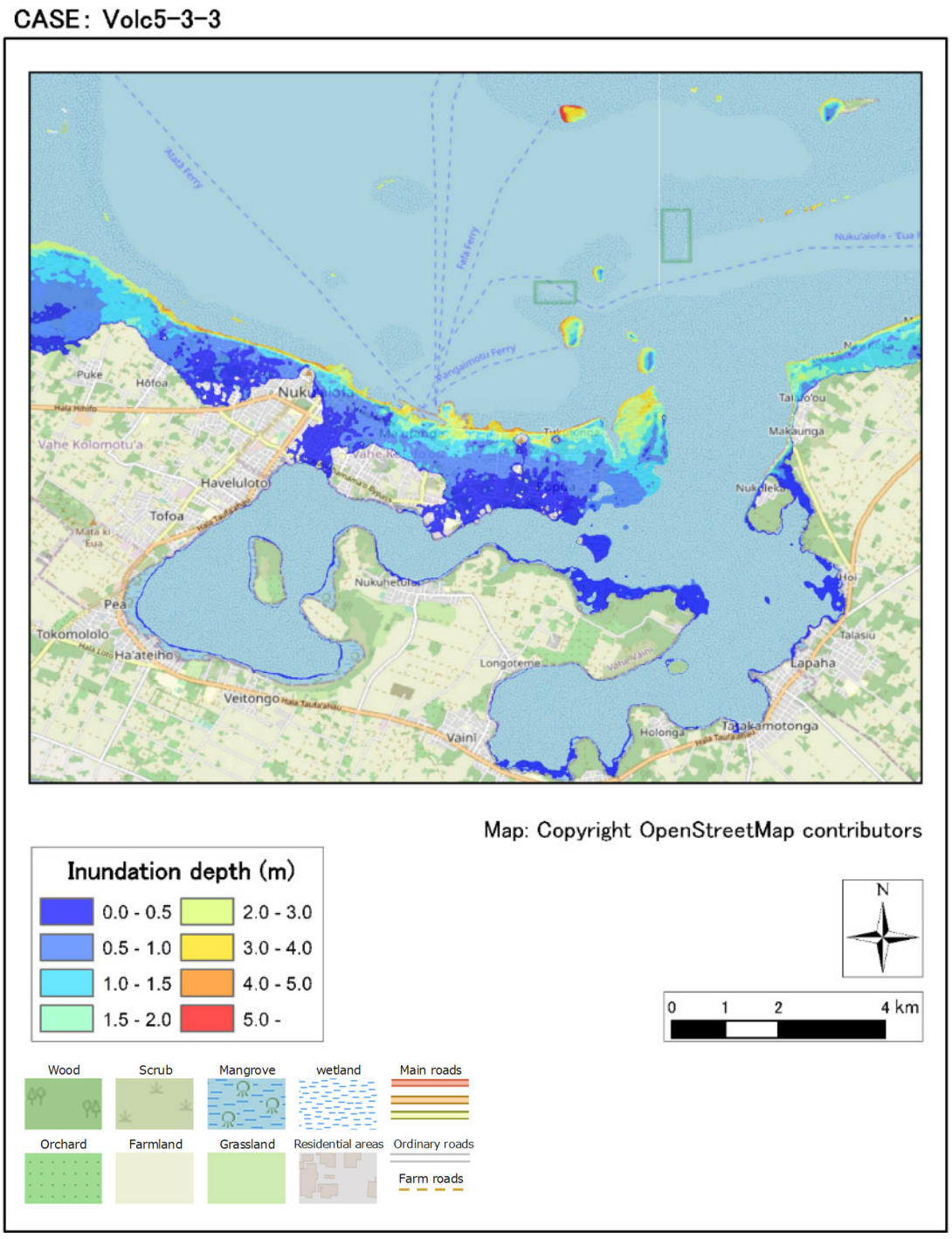
Source: JICA Study Team

Figure 2.6.294 Max inundation depth distribution (Lateiki, H=90m Raised Seawall M.S.L.+4.0m)



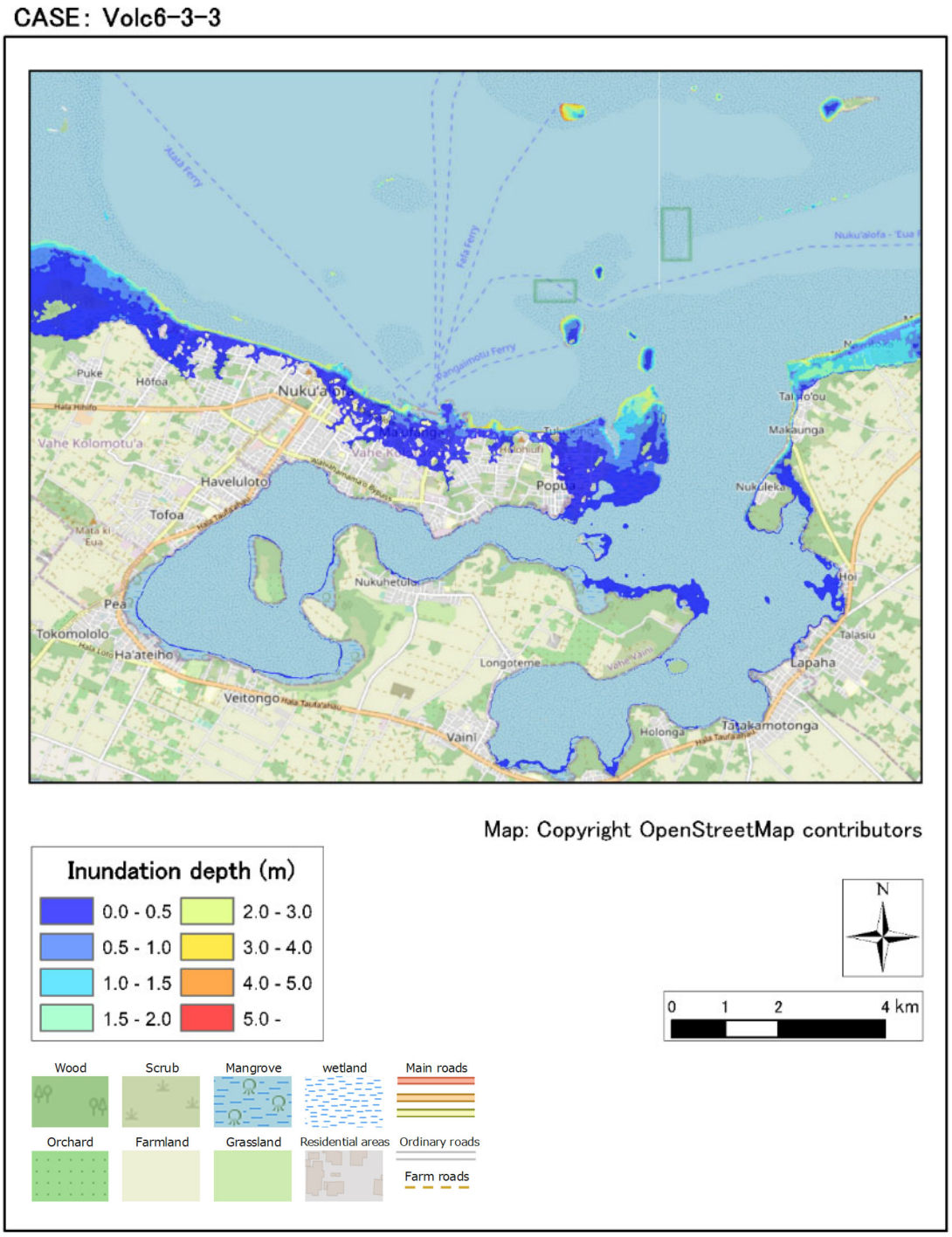
Source: JICA Study Team

Figure 2.6.295 Max inundation depth distribution (Fonuafo'ou, H=90m Raised Seawall M.S.L.+4.0m)



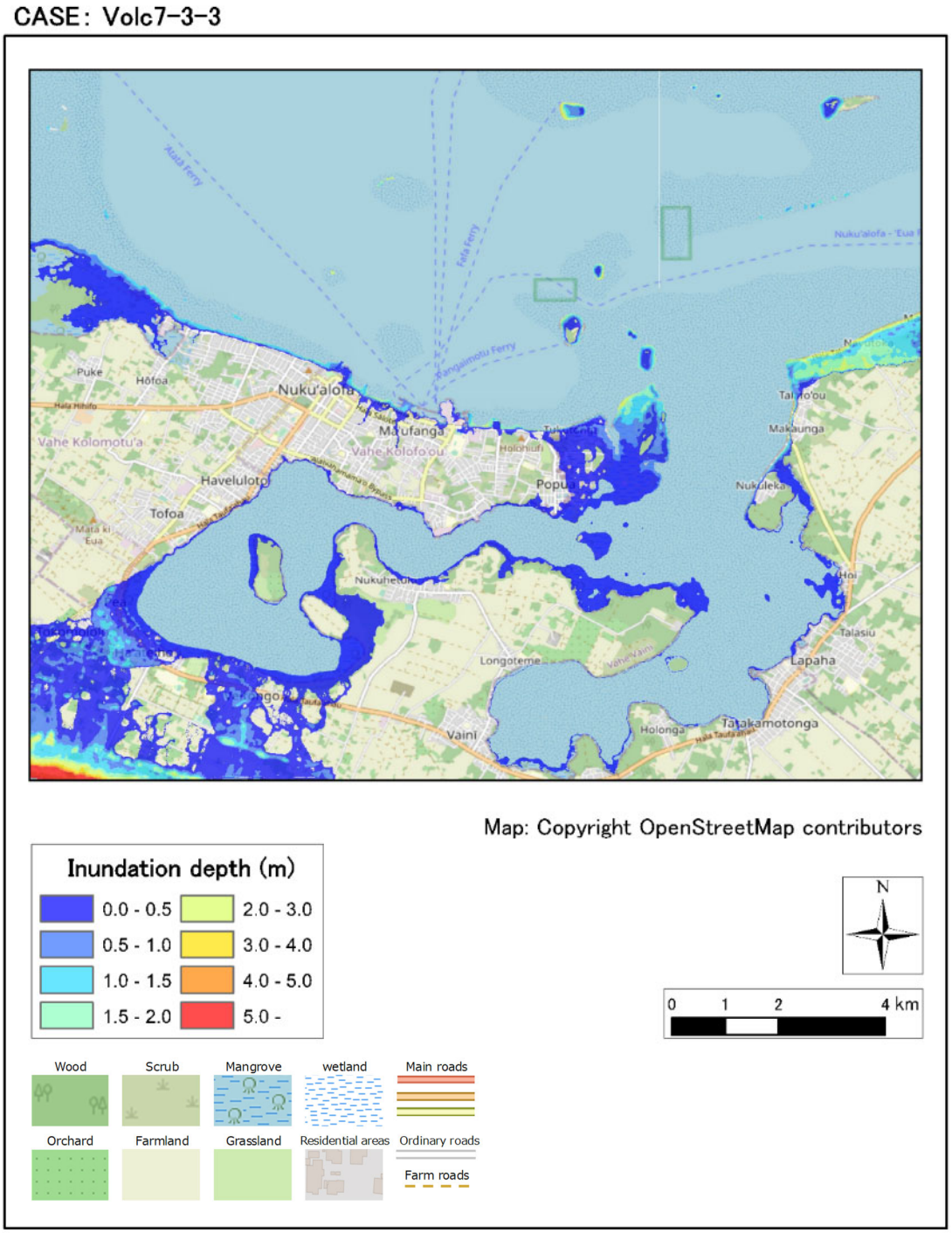
Source: JICA Study Team

Figure 2.6.296 Max inundation depth distribution (Unamed2, H=90m Raised Seawall M.S.L.+4.0m)



Source: JICA Study Team

Figure 2.6.297 Max inundation depth distribution (Unamed3, H=90m Raised Seawall M.S.L.+4.0m)



Source: JICA Study Team

Figure 2.6.298 Max inundation depth distribution (Unamed4, H=90m Raised Seawall M.S.L.+4.0m)