



### Comprehensive Building Damage Assessment & Related Density in Tongatapu Island, Tonga

This map illustrates comprehensive building damage assessment and related density in Tongatapu island by district as detected by Pleiades and WorldView-2 satellite imagery following the passage of the tropical cyclone GITA-18. The UNITAR-UNOSAT analysis combined with Copernicus EMS analysis identified about 7,700 potentially damaged structures across the Tongatapu Island. According to the pre-event building footprints provided by Humanitarian Open Street Map, this represents 34% of the total number of structures / buildings. The most affected districts in terms of percentage of damage are Vaini & Lapaha, with an estimate of 55% and 46% of damage. This is a preliminary analysis and has not yet been validated in the field. Please send ground feedback to UNITAR-UNOSAT.

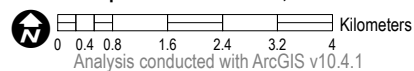
#### Legend

- Populated place
- Visible damage
- Road
- District boundary

#### Damage density level

- High damage density
- Low damage density

Map Scale for A3: 1:110,000



Coordinate System: WGS 1984 UTM Zone 1S  
Projection: Transverse Mercator  
Datum: WGS 1984  
Units: Meter



Satellite Data (Post): Pleiades  
Imagery Dates: 14, 15, 16 & 21/02/2018  
Resolution: 50 cm  
Copyright: CNES 2018 Distribution  
AirbusDefence and Space

Source: Airbus Defence and Space  
Satellite Data (Post & Pre): WorldView-2 & WorldView-3  
Imagery Date: 13/02/2018 / 12/01/2018 (12/02/2018)  
Resolution: 50 cm  
Copyright: DigitalGlobe, Inc

Source: USGS-HDDS  
Road data & building footprints: OpenStreetMap contributors  
Analysis: UNITAR - UNOSAT  
Production: UNITAR - UNOSAT

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