



INTERNATIONAL RESEARCH CENTER OF BIG DATA FOR SUSTAINABLE DEVELOPMENT GOALS 可持续发展大数据国际研究中心

ASSESSMENT OF MYANMAR EARTHQUAKE BASED ON HIGH SPATIAL NIGHTTIME LIGHT DATA FROM VIIRS DNB



29 March 2025

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INTRODUCTION

- A powerful 7.7 magnitude earthquake (Center: 21.85°N, 95.95°E) struck Myanmar on Friday at 12:50 am (local time). The quake struck near Mandalay, Myanmar's second-largest city of more than a million people. An aftershock of magnitude 6.4 (21.60°N, 95.95°E) was registered at 13:02 (local time).
- In response, the CBAS and IRDR initiated emergency mapping activities in the affected areas, mainly the nighttime light and synchronize thermal infrared spectrometer (TIS) data, to support the humanitarian response.





IMAGES

96°0'0"E





96°0'0"E

96°10'0"E

IMAGES

96°0'0"E

96°10'0"E

96°20'0"E

95°50'0"E





96°30'0"E

95°50'0"E

96°0'0"E

ANALYSIS







PRELIMINARY RESULTS



- As a result of the earthquake, the total decrease in light in the Mandalay region was 41.0%, including 110 km² of light increase area and 1912 km² of light decrease area.
- The total decrease in light in the Yangon region was 40.7%, including 410 km² of light increase area and 6300 km² of light decrease area.
- The results are for reference only due to the influence of clouds and fog and the shimmering angle of view.
- Observation of the affected area will continue.

SOURCES

(1) Satellite Images Satellite Data: VIIRS VNP46A2 Imagery Date: from 27 March, 28 March 2025 Resolution: 750 m Copyright: NASA Source: NASA

(2) Ancillary Data

Administrative boundaries: Database of Global Administrative Areas Version: 4.10 Buildings polygon: Open Street Map (3) Analysis & Production

Analysis: International Research Center of Big Data for Sustainable Development Goals (CBAS) Production: International Research Center of Big Data for Sustainable Development Goals (CBAS) & Integrated Research on Disaster Risk (IRDR)

(4) Contact us<u>sdgsat1@cbas.ac.cn</u><u>connect@irdrinternational.org</u>



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