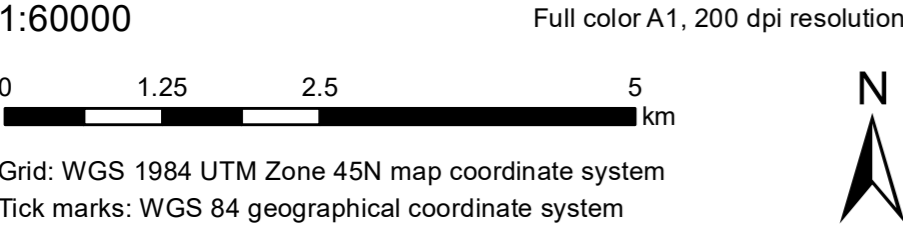


Bhubaneswar - INDIA
Storm - Situation as of 06/05/2019
First Estimate Product

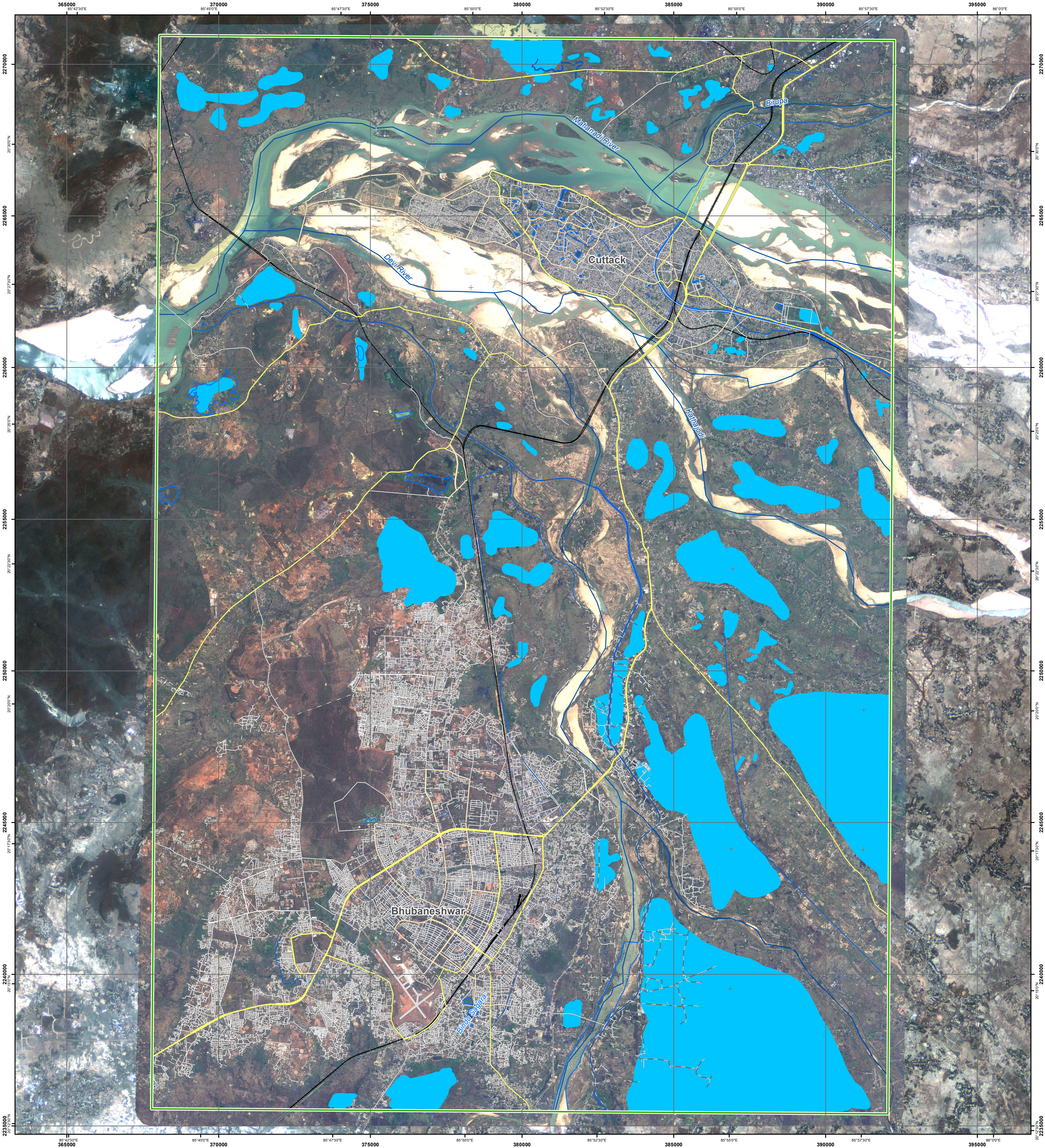
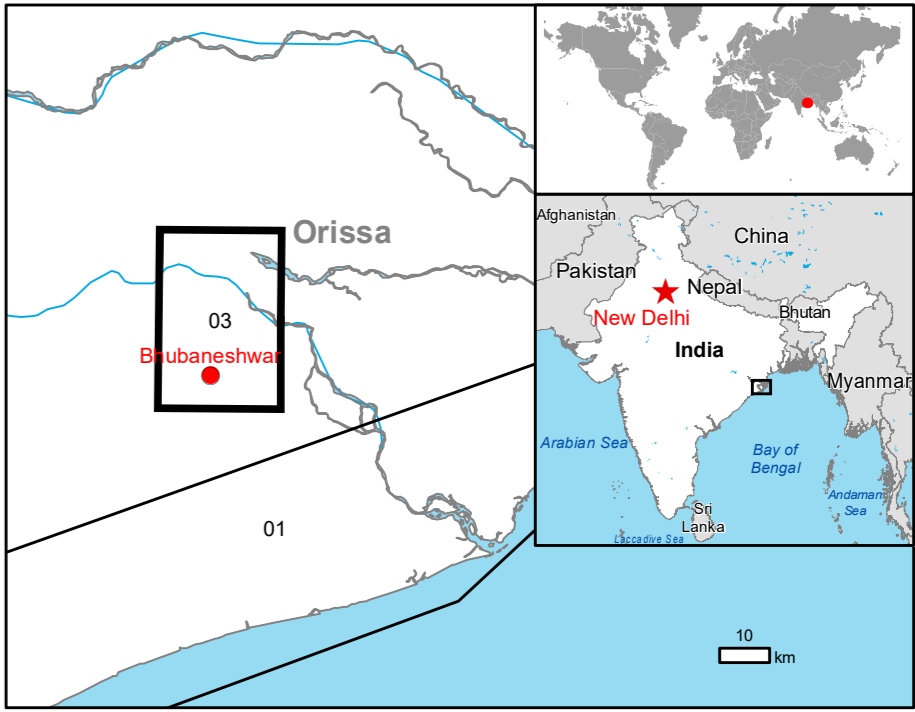
Cartographic Information



- Crisis Information**
Flooded Area (06/05/2019 04:31 UTC)
- General Information**
Area of Interest
- Placenames**
Placename
- Hydrography**
River
Stream
Lake
Reservoir
- Transportation**
Helipad
Primary Road
Secondary Road
Local Road
Cart Track
Long-distance railway
Airfield runway

Land use - Land Cover
Features available in the vector package

Legend



Map Information

Tropical Cyclone (TC) Fani is expected to be the strongest tropical cyclone in 20 years to hit India and is barreling towards 100 million people on its East coast, prompting emergency evacuations. On 02.05.2019 TC Fani's winds of 215 kph with gusts of 280 kph make it a Category 4 cyclone (Saffir-Simpson scale). It is expected to make landfall in Odisha state midday Friday (03/05/2019) but severe storm force winds are already lashing parts of Andhra Pradesh and will soon reach the Odisha coast.

The present map shows the first estimate product in the area of Bhubaneswar (India). The thematic layer has been derived from post-event satellite image using a semi-automatic approach. The estimated geometric accuracy (RMSE) is 10 m or better, from native positional accuracy of the background satellite image.

Data sources

Pre-event image: Sentinel 2A (2019) (acquired on 28/04/2019 at 04:47 UTC, GSD 10 m, approx. 0% cloud coverage in AoI) provided under COPERNICUS by the European Union and ESA.
Post-event image: SPOT6/7 © Airbus DS (2019), (acquired on 06/05/2019 at 04:31 UTC, GSD 1.5 m, approx. 0% cloud coverage in AoI, 12.2° off-nadir angle), provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap contributors, Wikimapia.org, GeoNames 2015, Global Administrative Areas (2012), refined by the producer.
Inset maps: JRC 2013, Natural Earth 2012, GeoNames 2013.

Population data: GHS Population Grid © European Commission, 2015 http://data.europa.eu/89h/jrc-ghs-ghs_pop_gpw4_globe_2015a
Digital Elevation Model: SRTM (90 m) (NASA/USGS)

Disclaimer

Products elaborated in this Copernicus EMS Rapid Mapping activity are realized to the best of our ability, within a very short time frame, optimising the available data and information. All geographic information has limitations due to scale, resolution, date and interpretation of the original sources. No liability concerning the contents or the use thereof is assumed by the producer and by the European Union.

Delivery formats are Layered Geospatial PDF, GeoJPEG and vector (ESRI shapefiles, Google Earth KML, GeoJSON).

Map produced by GAF AG released by e-GEOS (ODO).

For the latest version of this map and related products visit <http://emergency.copernicus.eu/EMSR357>

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Relevant date records (UTC)

Event	03/05/2019 06:00	Situation as of	06/05/2019 04:31
Activation	02/05/2019 15:51	Map production	06/05/2019