



UNOSAT

Tropical Cyclone FANI

Population Exposure Analysis in Bangladesh

04 May 2019

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Geneva, Switzerland

UNOSAT Contact:

Email: unosat@unitar.org
T: +41 22 767 4020 (UNOSAT Operations)
24/7 hotline: +41 75 411 4998

Postal Address:

UNITAR – UNOSAT, IEH
Chemin des Anémones 11,
CH-1219, Genève, Suisse



Overview

Tropical Cyclone FANI, the strongest storm to make landfall in India in the last 20 years since Tropical Cyclone Nargis in 2008, was originated from India ocean then moved to the Bay of Bengal. It has rapidly intensified and should continue to strengthen through the week as it tracks north toward eastern India and Bangladesh. The cyclone made landfall between at Odisha state, India on the morning of 3 May 2019, with maximum sustained winds up to 240 km/h (Category 4 on the Saffir-Simpson scale). After landfall, it weakened as it moved towards West Bengal, reaching western Bangladesh with maximum sustained winds of 99-110 km/h. FANI is now at such an intensity that can have a high humanitarian impact as by GDACS assessment. This is based on the maximum sustained wind speed, exposed population and vulnerability.

Based on data of the expected tropical cyclone path FANI, wind speeds zones from Joint Research Centre (Issued on 3 May 2019 12:00 UTC), and population data from WorldPop 2015, UNITAR-UNOSAT conducted a population exposure analysis for Bangladesh. About 36% of population of Bangladesh living inside wind speed zone of 60 km/h as after landfall the maximum speed decreases.

Population Exposure in Bangladesh



161,077,200

Total population of Bangladesh
(*WorldPop 2015)

58,240,820

Total population living within **60 km/h** wind speed zone

Bangladesh Population Exposed to sustained wind speed zones: Tropical Cyclone FANI (3 May 2019, 12:00 UTC)

| Division / District | Wind Speed Zone (WSZ) Population | | |
|---------------------|-------------------------------------|--------------------------------|-------------------------------|
| | WSZ ≥ 120 km/h | 90 km/h ≤ WSZ ≤ 120 km/h | 60 km/h ≤ WSZ ≤ 90 km/h |
| Dhaka | | | |
| Dhaka | | | 54,311 |
| Faridpur | | | 289,897 |
| Gazipur | | | 5,067 |
| Manikganj | | | 724,272 |
| Rajbari | | | 1,164,252 |
| Tangail | | | 3,966,917 |
| Khulna | | | |
| Chuadanga | | | 1,274,469 |
| Jessore | | | 1,928,520 |
| Jhenaidah | | | 1,956,513 |
| Kushtia | | | 2,146,496 |
| Magura | | | 970,422 |
| Meherpur | | | 733,965 |
| Narail | | | 18,220 |
| Satkhira | | | 491,425 |
| Mymensingh | | | |
| Jamalpur | | | 2,530,591 |
| Mymensingh | | | 4,428,661 |
| Netrakona | | | 948,965 |
| Sherpur | | | 1,495,636 |
| Rajshahi | | | |
| Bogra | | | 3,820,671 |
| Joypurhat | | | 1,014,704 |
| Naogaon | | | 2,903,957 |
| Natore | | | 1,906,899 |
| Nawabganj | | | 1,830,813 |
| Pabna | | | 2,822,366 |
| Rajshahi | | | 2,948,446 |
| Sirajganj | | | 3,436,890 |
| Rangpur | | | |
| Dinajpur | | | 2,419,685 |
| Gaibandha | | | 2,636,255 |
| Kurigram | | | 2,283,244 |
| Lalmonirhat | | | 999,237 |
| Nilphamari | | | 801,030 |
| Rangpur | | | 3,288,022 |
| Grand Total | | | 58,240,820 |

Download full excel table from [here](#):

Sources:

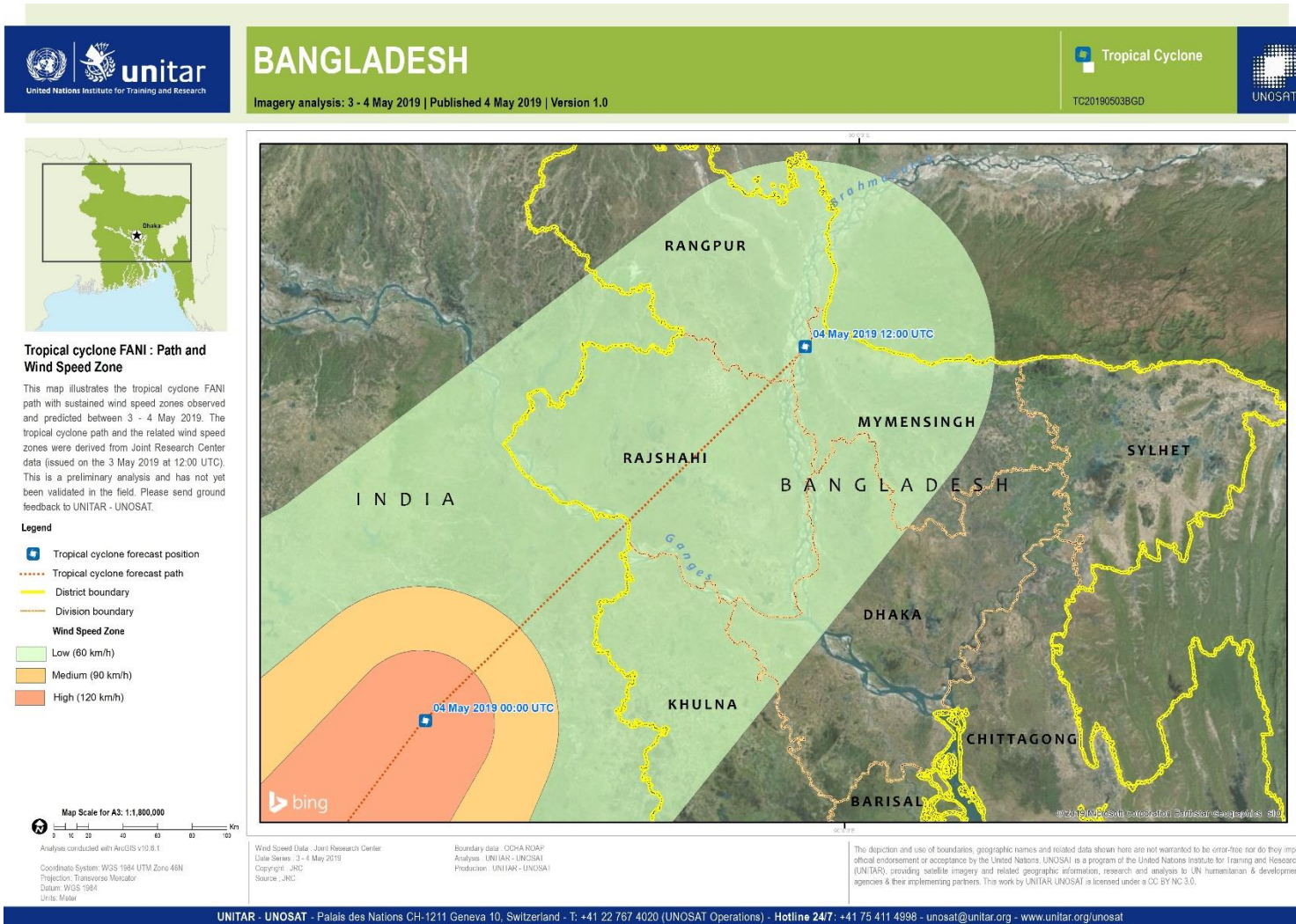
Cyclone track: Joint Research Centre (JRC) as of 03 May 2019

Wind speed zones: Joint Research Centre (JRC) as of 03 May 2019, 12:00 UTC

Administrative Levels: OCHA ROAP

Spatial Demographic Data: WorldPop (2015), 100 m spatial resolution

Analysis: UNITAR-UNOSAT (04 May 2019)



Map1: Tropical cyclone FANI track with low, medium and strong wind speed zones. [Download PDF map here](#)