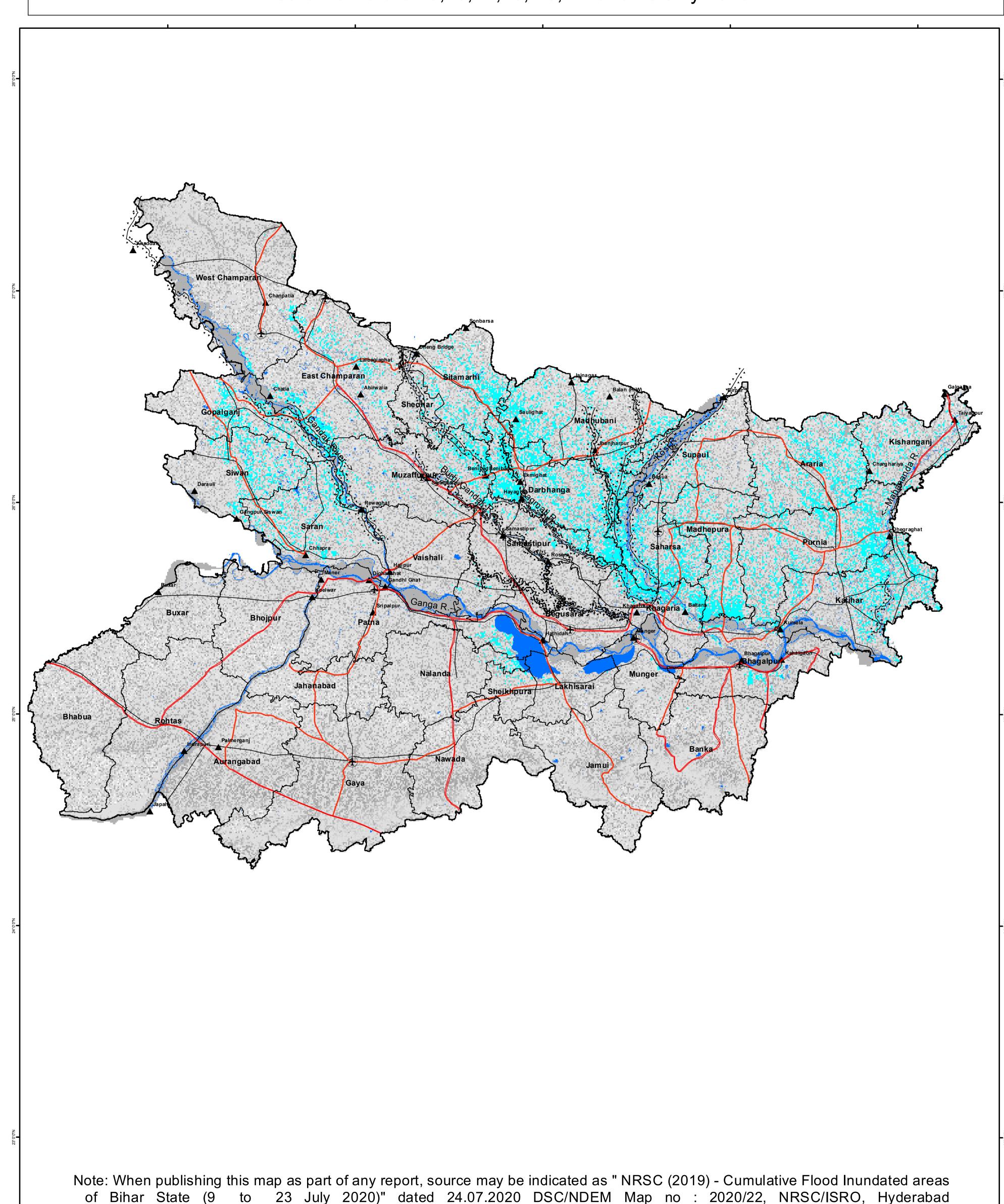
## **Cumulative Flood Inundated areas of Bihar State**

Based on the analysis of RADARSAT-2 SAR, Sentinel-1A SAR, ALOS PALSAR-2 and TerraSAR-X Satellite Data of 9,13,14,16, 18, 21 and 23 July 2020



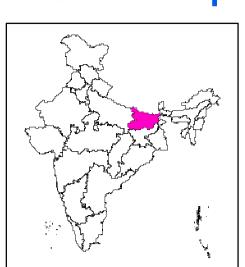
84° 0' 0"E

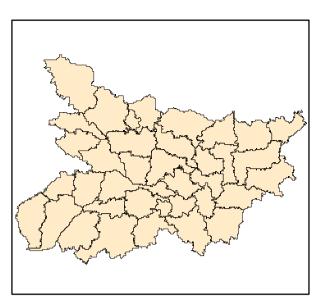
For official use

DISASTER EVENT ID: 03-FLD-2020-BR MAP ID: 2020/22

Date of Issue : 24.07.2020

### **Location Map**





#### **About the Event**

Heavy rains are reported in Bihar during second week of July 2020 and caused steady rise in water levels in parts of Bihar state. According to reports, River Adhwara at Saharghat, Parman at Araria, Mahananda at Taibpur and Jhawa, Kamla at Jainagar, Ghagra at Darauli, Kosi at Basua and Baltara, Gandak at Dumariaghat, Bagmati at Dheng Bridge, Runisaidpur and Benibad were reported to be flowing above danger level. (Source: News Media, FMISC)

#### **Satellite Observations**

This map highlights the inundated areas due to heavy rains in 23 districts of Bihar State from 9 to 23 July 2020.

**Post Flood:** 

#### Satellite data used

# Pre Flood:

Satellite: ResourceSat-2

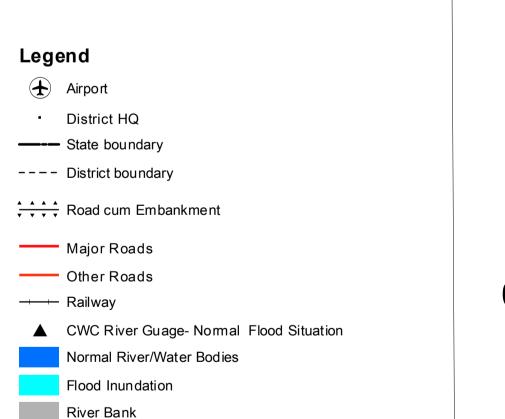
Sensor: AWiFS

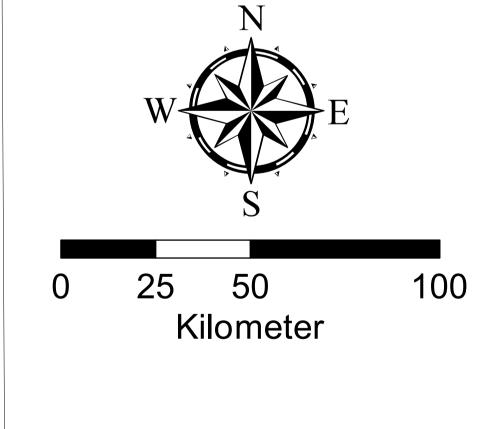
Date of Pass: 03-March-2020

S No	Date	Satellite / Sensor
1	09-Jul-20	SENTINEL-1 / SAR
2	13-Jul-20	SENTINEL-1 / SAR
3	14-Jul-20	ALOS 2 PALSAR / SAR
4	16-Jul-20	RADARSAT-2 SAR
5	16-Jul-20	SENTINEL-1 / SAR
6	18-Jul-20	SENTINEL-1 / SAR
7	21-Jul-20	SENTINEL-1 / SAR
8	23-Jul-20	SENTINEL-1 / SAR and TerraSAR-X

#### Other data used

NRC Landuse/Landcover Data of 2018-19 Background Data: Shaded Relief





This product is prepared on rapid mapping mode for immediate use and sharing amongst official agencies. This provides preliminary results. Flood inundation may include rain water accumulation / flood water in low lying areas.

Districts with inundation less than 1000 ha are not included in the statistics. All geographic information has limitations due to the scale, resolution, date and interpretation of the original source materials. No ground verification is done.

This product is prepared using Sentinel-1A and

TerraSAR-X Satellite images received under International Charter, Call ID-764 "TerraSAR-X/TanDEM-X © DLR e.V. 2020 Distribution Airbus DS Geo GmbH".

#### **RRES**

National Remote Sensing Centre, ISRO Dept. of Space, Govt. of India Hyderabad- 500 037 E-Mail: flood@nrsc.gov.in www.nrsc.gov.in







