## **Cumulative Flood Inundated areas in East Champaran District**

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 23rd July 2020

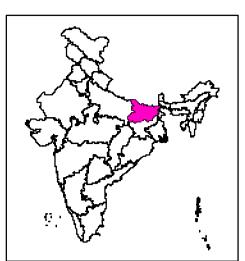


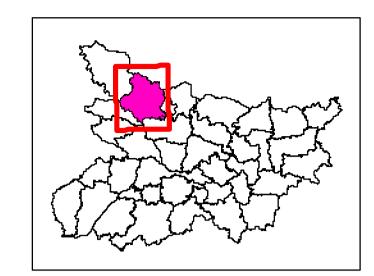
Note: When publishing this map as part of any report, source may be indicated as "NRSC (2020) - Cumulative Flood Inundated areas of East Champaran District, Bihar State (9th to 23rd July 2020)" dated 24.07.2020 DSC/NDEM Map no: 2020/25, NRSC/ISRO, Hyderabad For official use

DISASTER EVENT ID: 03-FLD-2020-BR MAP ID: 2020/25

Date of Issue : 24.07.2020

## **Location Map**





## **About the Event**

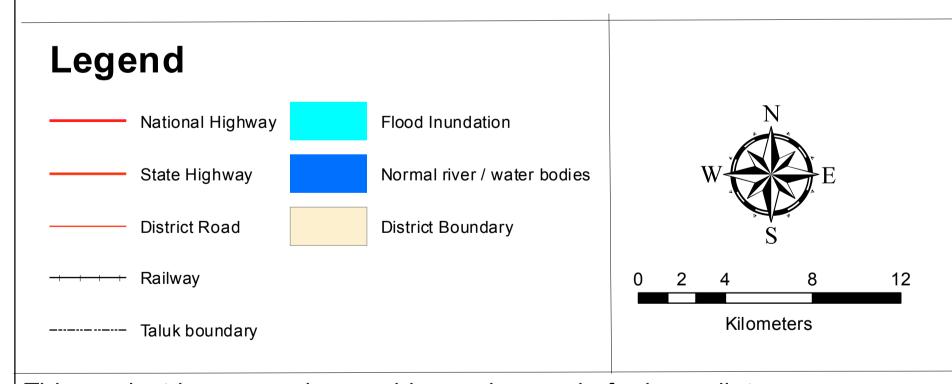
Heavy rains are reported in Bihar during second week of July 2020 and caused steady rise in water levels in parts of Bihar state. According to reports, River Adhwara at Saharghat, Parman at Araria, Mahananda at Taibpur and Jhawa, Kamla at Jainagar, Ghagra at Darauli, Kosi at Basua and Baltara, Gandak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

## **Satellite Observations**

This map highlights the inundated areas due to heavy rains in East Champaranj District of Bihar state

Satellite data used	Post Flood		
Pre Flood:			Satellite /
Satellite: ResourceSat-2 Sensor: AWiFS Date of Pass: 03-March-2020	S No	Date	Sensor
	1	09-Jul-20	SENTINEL-1 / SAR
	2	13-Jul-20	SENTINEL-1 / SAR
			ALOS 2 PALSAR /
	3	14-Jul-20	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
Other data used			SENTINEL-1 / SAR
	8	23-Jul-20	and TerraSAR-X

NRC Landuse/Landcover Data of 2018-19



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** 

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