

BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI

Original Application No. 756/2023

Sachin Tyagi

...Applicant

Versus

Ritesh Sharma & Anr.

...Respondent(s)

**REPORT FILED BY RESPONDENT NO.9 IN COMPLIANCE OF THE  
HON'BLE NATIONAL GREEN TRIBUNAL ORDER DATED 29.08.2024**

I, P Aravinda Kumar, S/o. Yakhoob, aged about 52 years, Occupation – Government Service, in National Remote Sensing Centre, Hyderabad, do hereby solemnly affirm and state on oath as follows:

2. I am working as Scientist/Engineer 'SG', National Remote Sensing Centre, Balanagar, Hyderabad and dealing with the subject matter and as such I am well acquainted with the facts of Report. I am filing this Report on behalf of the Respondent No.9, as I am authorised to do so.

3. It is humbly submitted that, the Hon'ble Tribunal vide order dated 29.08.2024 at Para No.10 directed the Respondent No.9 to submit a report along with remote sensing images of the concerned areas from January 2024 onwards at an interval of

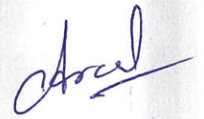


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15 days each, specifically in reference to the Geo-coordinates mentioned in the photographs and generally in reference to the riverbed and river stream of Yamuna passing through the Districts Panipat and Baghpat.

4. In compliance of the above directions, the National Remote Sensing Centre had carried out a study on the directive of Hon'ble NGT and generated the report. The same is enclosed herewith as ANNEXURE for kind perusal of the Hon'ble Tribunal. However, I hereby undertake to extend any support of further clarifications or any assistance at the disposal of the Hon'ble Tribunal.



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**VERIFICATION**

I, P Aravinda Kumar, S/o. Yakhoob, aged about 52 years, Occ: Scientist/Engineer 'SG' in National Remote Sensing Centre, Hyderabad, do hereby verify and declare that the contents of the report are true and correct to the best of my knowledge and belief based on the information gathered from the records available and on legal advice of my counsel. I have not suppressed any material facts.

Hence, verified on this ..... 03<sup>rd</sup> ..... Day of December, 2024 at Hyderabad.



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**REPORT ON**  
**National Green Tribunal (NGT), New Delhi**  
**Original Application No. 756/2023**  
**Sachin Tyagi Vs Ritesh Sharma & Ors**

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By

Director, NRSC (Respondent-9)

National Remote Sensing Centre (NRSC)  
Indian Space Research Organisation (ISRO)  
Dept. of Space, Govt. of India  
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## A. BACKGROUND:

- National Green Tribunal (NGT) has impleaded **Director, National Remote Sensing Centre (NRSC), Hyderabad** as **Respondent No. 9**, in the order dated 29/08/2024; and NRSC has received NGT Notice on 18/10/2024 in this regard.
- As per the order, Director-NRSC is directed to submit the report along with the remote sensing images of the area concerned from January 2024 onward at an interval of 15 days each, especially in reference to the Geo-coordinates mentioned in the photographs and generally in reference to the riverbed and river stream of Yamuna passing through the Districts Panipat and Baghpat. Let the report by the Director, NRSA along with the above material be submitted within 6 weeks by e-mail at [judicialngt@gov.in](mailto:judicialngt@gov.in) preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.
- NRSC has carried out a study on the directive of NGT and generated the report.

## B. LOCATION

Location is between the border of State of Haryana and Uttar Pradesh is shown in Figure-1.



Figure 1 : The location of study area

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## C. SATELLITE DATA ACQUISITION & PHOTO LOCATIONS

### C.1 Satellite Images:

Based on cloud cover and repeatability of satellite/sensor, the following acquisitions were available in archives from January'2024 to October'2024 is shown in Table-1.

**Table 1 : List of Satellite images acquired over study area.**

Sl.No	Date of Acquisition	Satellite - Sensor	Resolution
1	14-Mar-2024	RS2A - LISS-IV MX	5.8 m
2	08-May-2024	RS2 - LISS-IV MX	5.8 m
3	13-May-2024	RS2 - LISS-IV MX	5.8 m
4	18-Jun-2024	RS2A - LISS-IV MX	5.8 m
5	04-Oct-2024	RS2 - LISS-IV MX	5.8 m
6	25-Aug-2024	Cartosat-2E MX	1.6 m

Orthorectification: All the images are Orthorectified and brought to common reference system, whose positional accuracy is around +/- 15-20m.

### C.2 Photo Locations:

Hon'ble court had provided photo locations along with geographic coordinates, where photos were taken and listed here in Table-2.

**Table 2 : Photo locations.**

Sno	Lat	Lon	Date	Time
1	29.223476	77.134177	13-May-24	6:21 PM
2	29.223463	77.134308	13-May-24	6:25 PM
3	29.22538	77.133904	24-May-24	6:41 PM
4	29.225878	77.133674	24-May-24	6:49 PM
5	29.22589	77.133676	24-May-24	6:49 PM
6	29.225904	77.133666	24-May-24	6:46 PM
7	29.225897	77.133675	24-May-24	6:45 PM
8	29.221657	77.134653	1-Jun-24	6:09 PM
9	29.223669	77.13424	1-Jun-24	5:42 PM

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The sample photos provided by Hon'ble Court as shown in Figure-2



Figure 2 : Sample Photos (provided by Hon'ble Court)

These photo locations were taken into GIS and distribution map is shown below in Figure-3

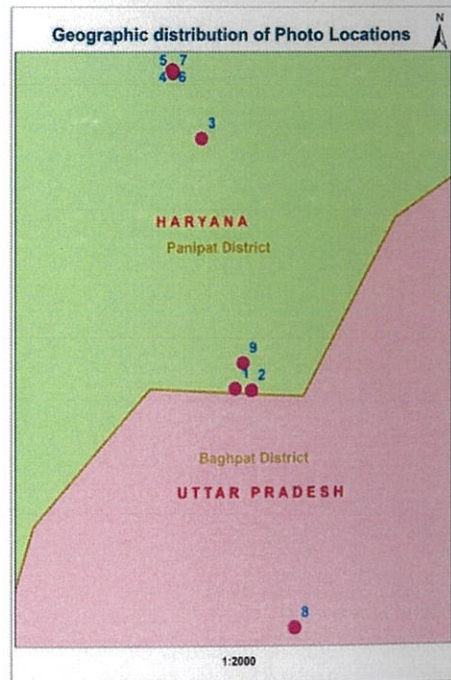


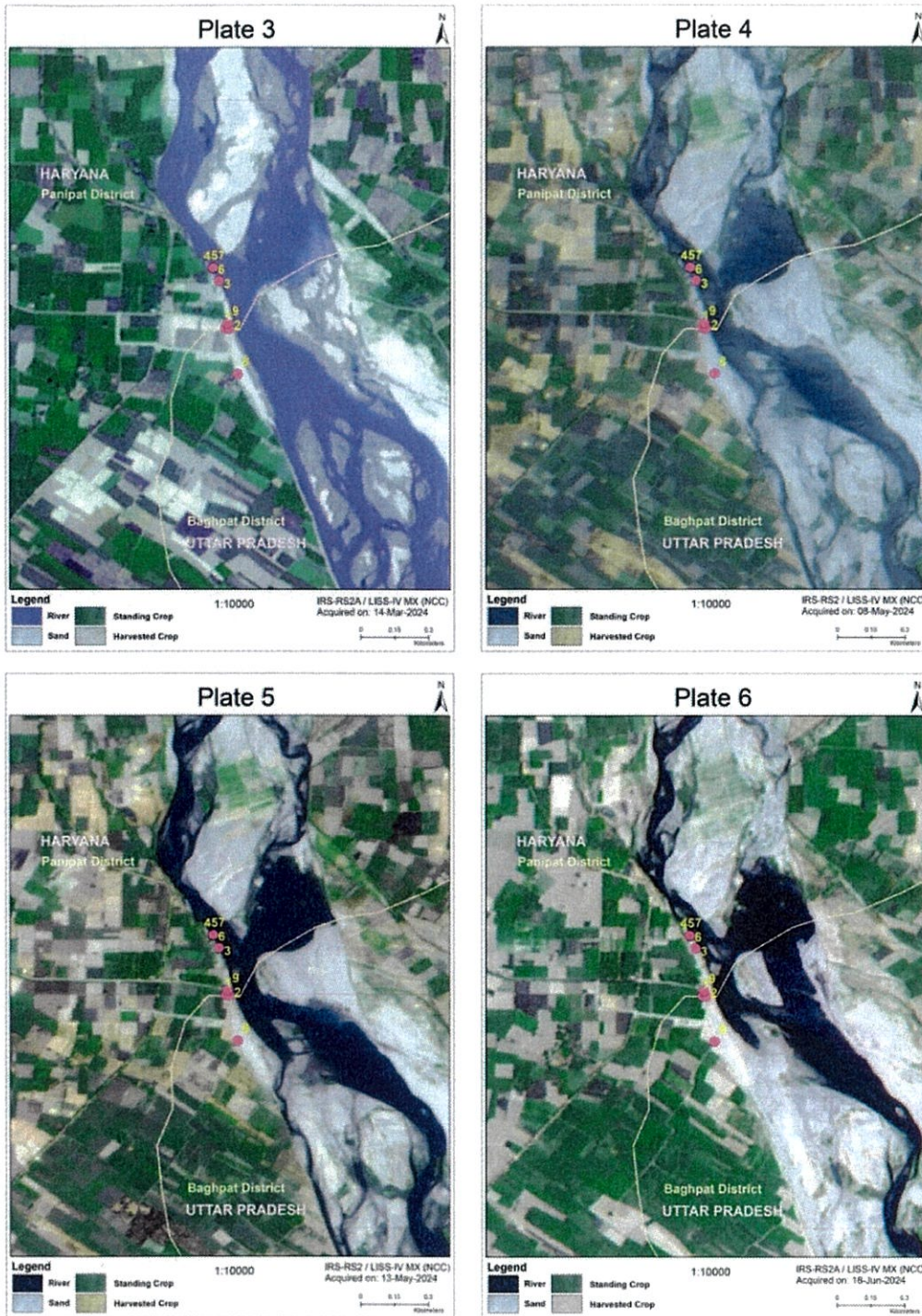
Figure 3 : Distribution of Photo Locations

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All the acquired LISS-IV MX satellite images are shown below in Figure-4.



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Figure 4 : IRS-LISS-V MX Images

Annexure-1 contains satellite images of study area

Annexure-2 contains Mapping of Satellite & Photos.

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**D. Observations:**

- ✚ The available cloud-free satellite data from January'2024 to October'2024 includes six datasets (five from LISS-IV MX and one from Cartosat-2E) were processed.
- ✚ Satellite images were orthorectified and Image maps were generated.
- ✚ Photo locations (provided by Hon'ble Court) and State boundaries obtained from the Survey of India (SOI) are overlaid on orthorectified Satellite Images. The accuracy and authenticity of the state boundary lies with the Survey of India (SOI).
- ✚ It is observed from Satellite images that, the Yamuna river course changes across the pre-monsoon, monsoon, and post-monsoon periods.
- ✚ Most of photograph locations lies in Haryana State and close to Uttarpradesh State boarder except Point No. 8, which is clearly seen in Uttarpradesh State area.

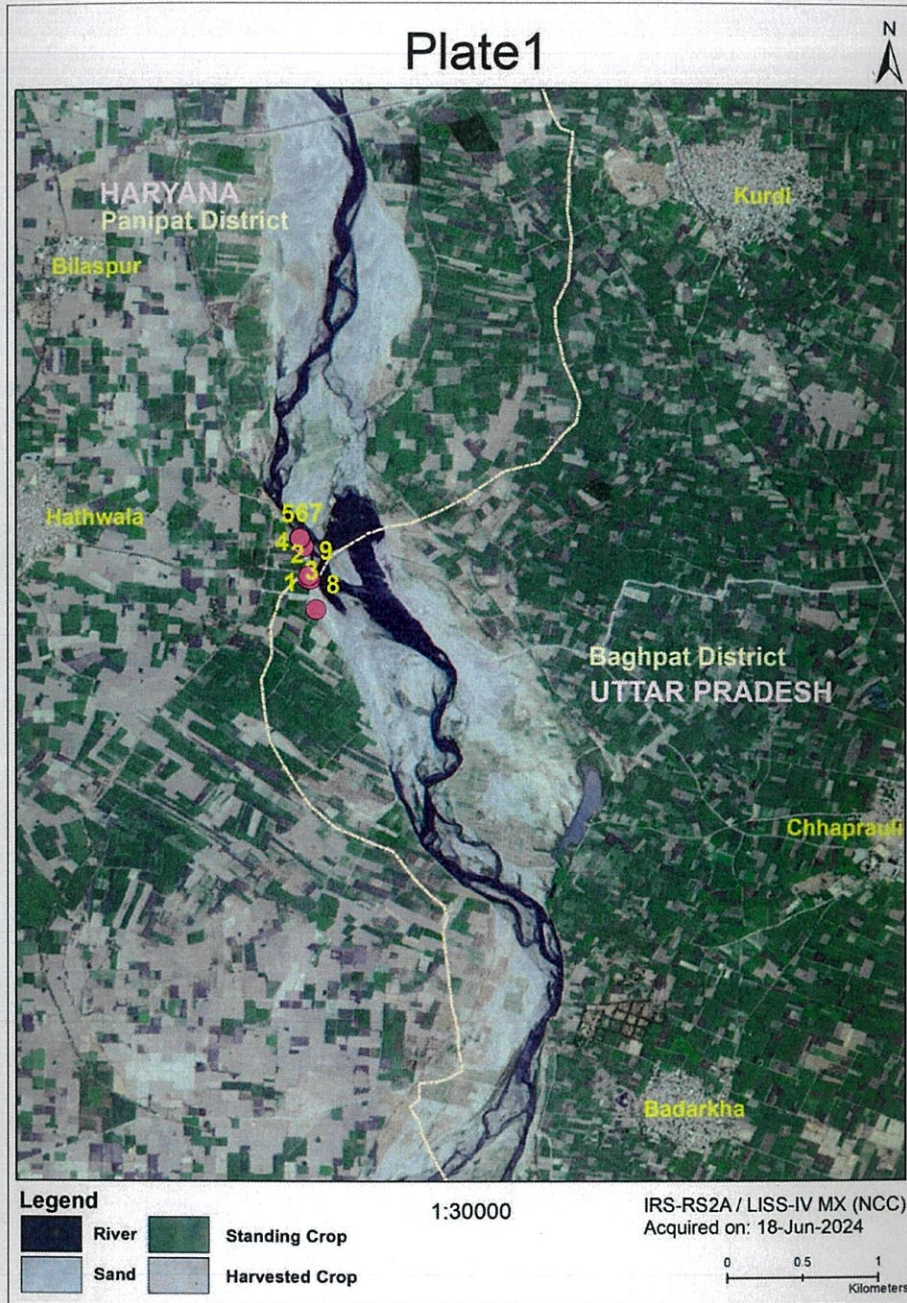
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Annexure-1 : Satellite Images



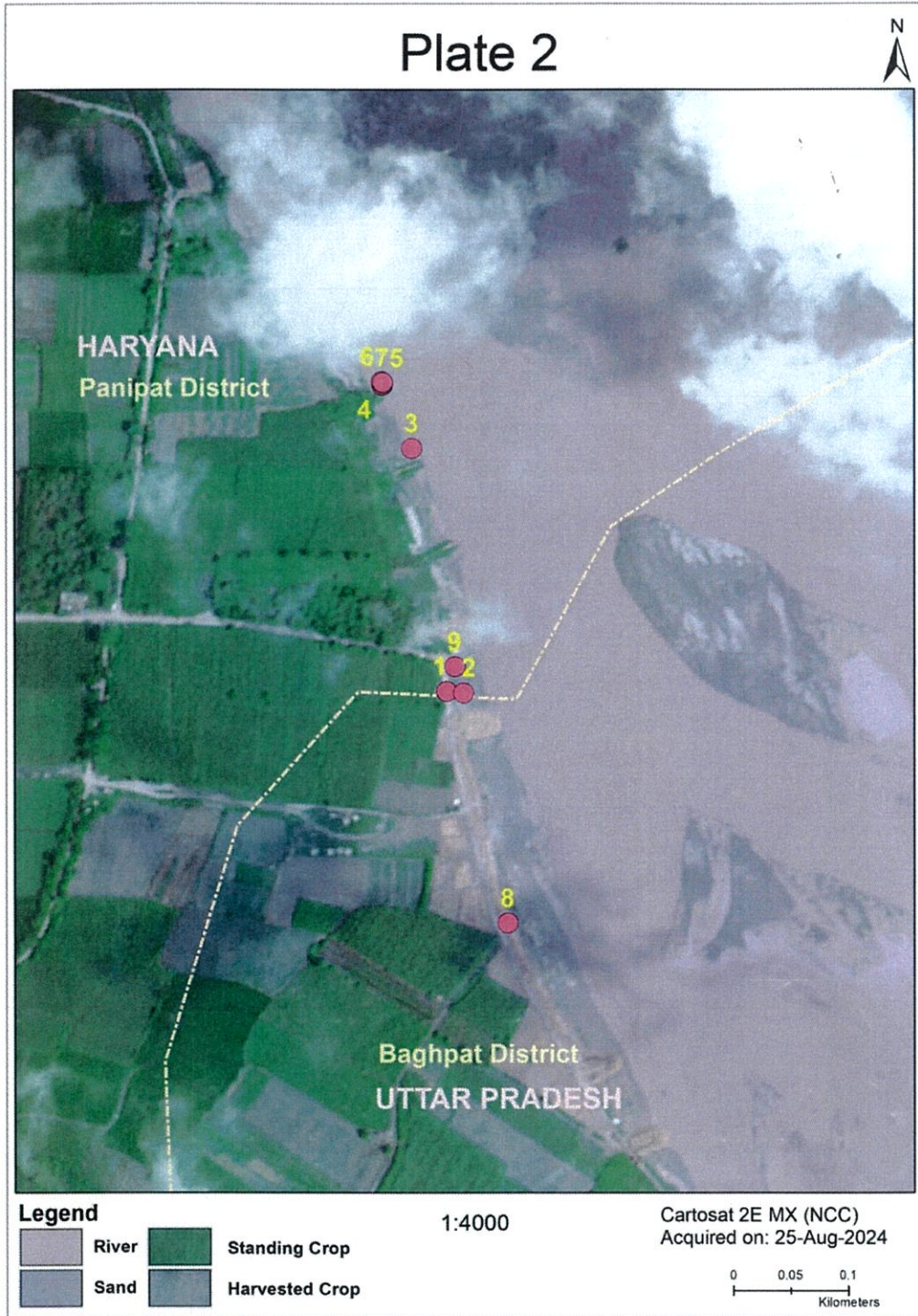
**Figure 5 : Study Area viewed by LISS-IV MX**

The plate-1/Figure-5 represents total area covered with adjacent villages.

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**Figure 6 : Cartosat-2E Image**

The plate-2/Figure-6 shows the satellite data of Cartosat-2E MX, whose spatial resolution is 1.6m and date of acquisition is on 25-Aug-2024.

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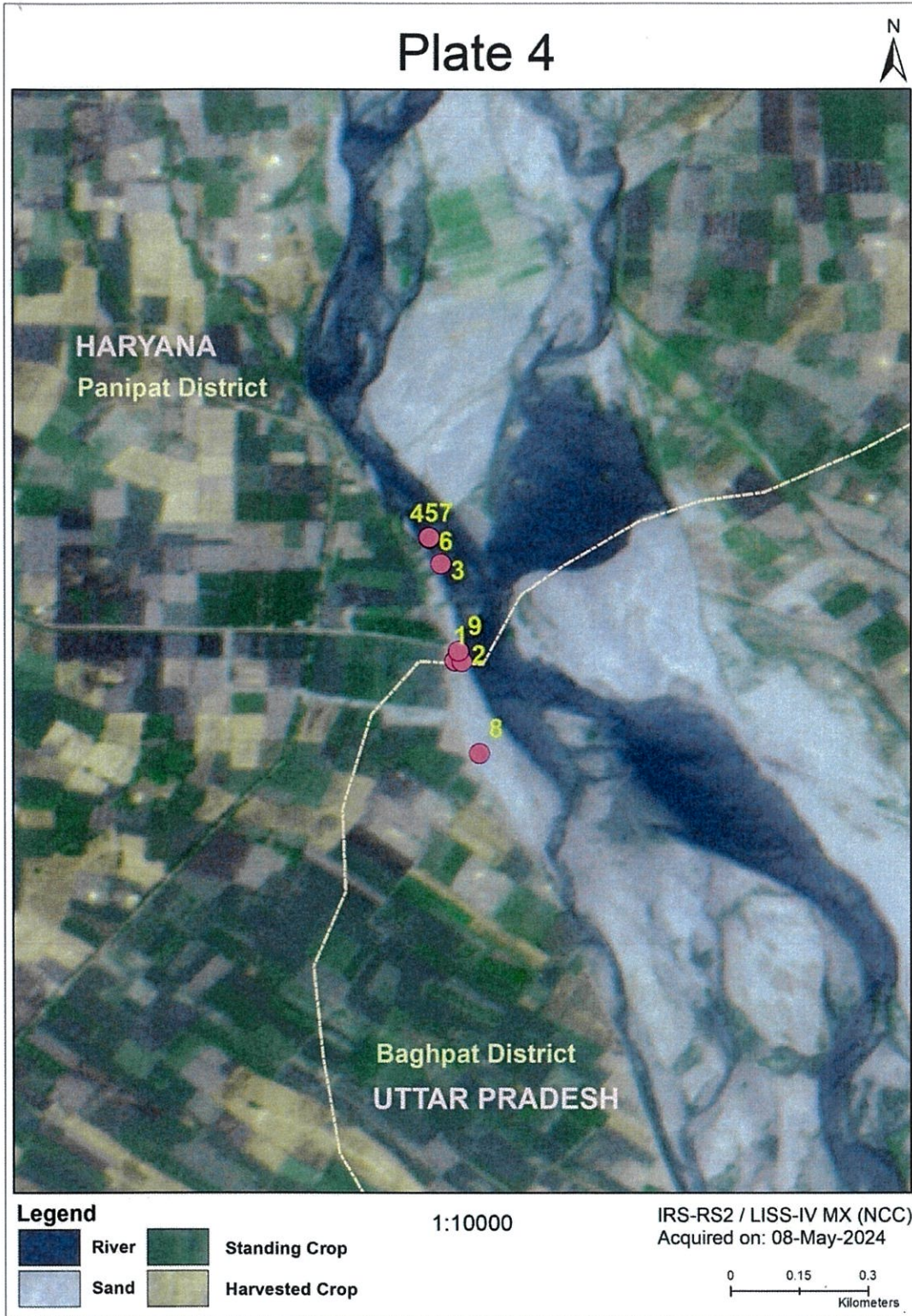
**Figure 7 : RS-2 LISS-IV MX Image Acquired on 14-Mar-2024**

The plate-3/Figure-7 shows the satellite data of ResourceSat-2 LISS-IV MX, whose spatial resolution is 5m and date of acquisition is on 14-Mar-2024.

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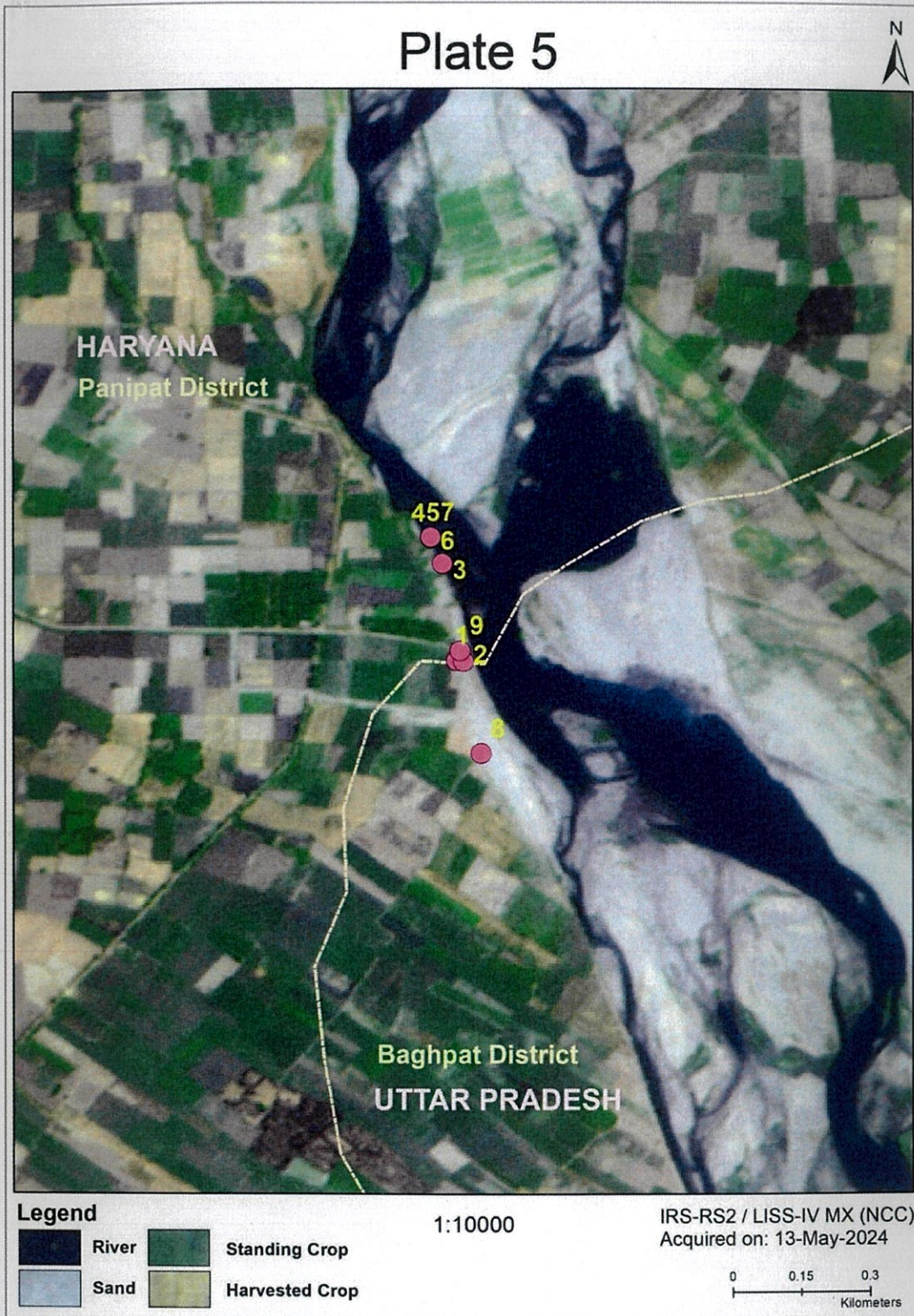
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**Figure 8 : RS-2 LISS-IV MX Image Acquired on 08-May-2024**

The plate-4/Figure-8 shows the satellite data of ResourceSat-2 LISS-IV MX, whose spatial resolution is 5m and date of acquisition is on 08-May-2024.

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**Figure 9 : RS-2 LISS-IV MX Image Acquired on 13-May-2024**

The plate-5/Figure-9 shows the satellite data of ResourceSat-2 LISS-IV MX, whose spatial resolution is 5m and date of acquisition is on 13-May-2024.

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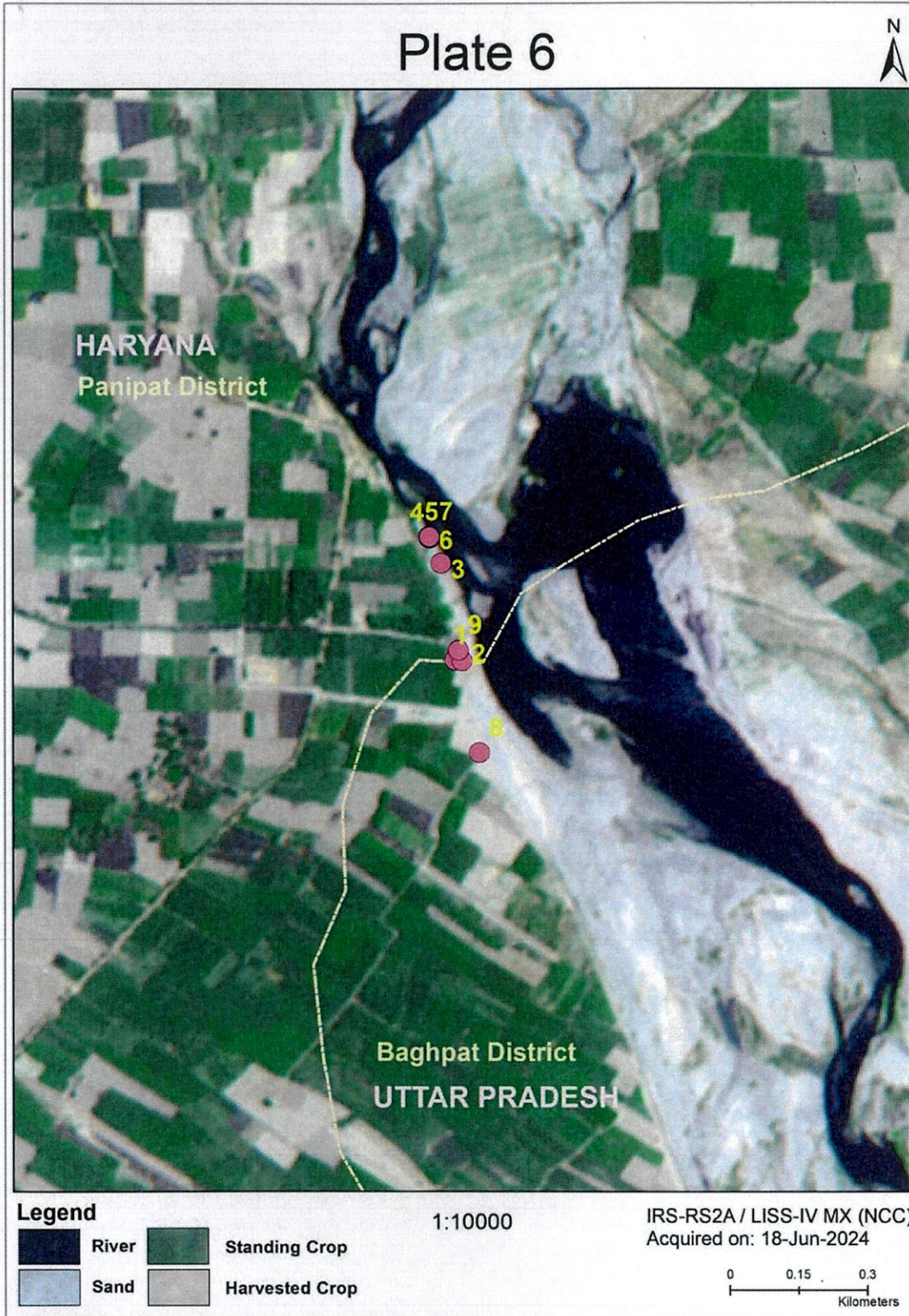


Figure 10 : RS-2 LISS-IV MX Image Acquired on 18-Jun-2024

The plate-6/Figure-10 shows the satellite data of ResourceSat-2 LISS-IV MX, whose spatial resolution is 5m and date of acquisition is on 18-Jun-2024.

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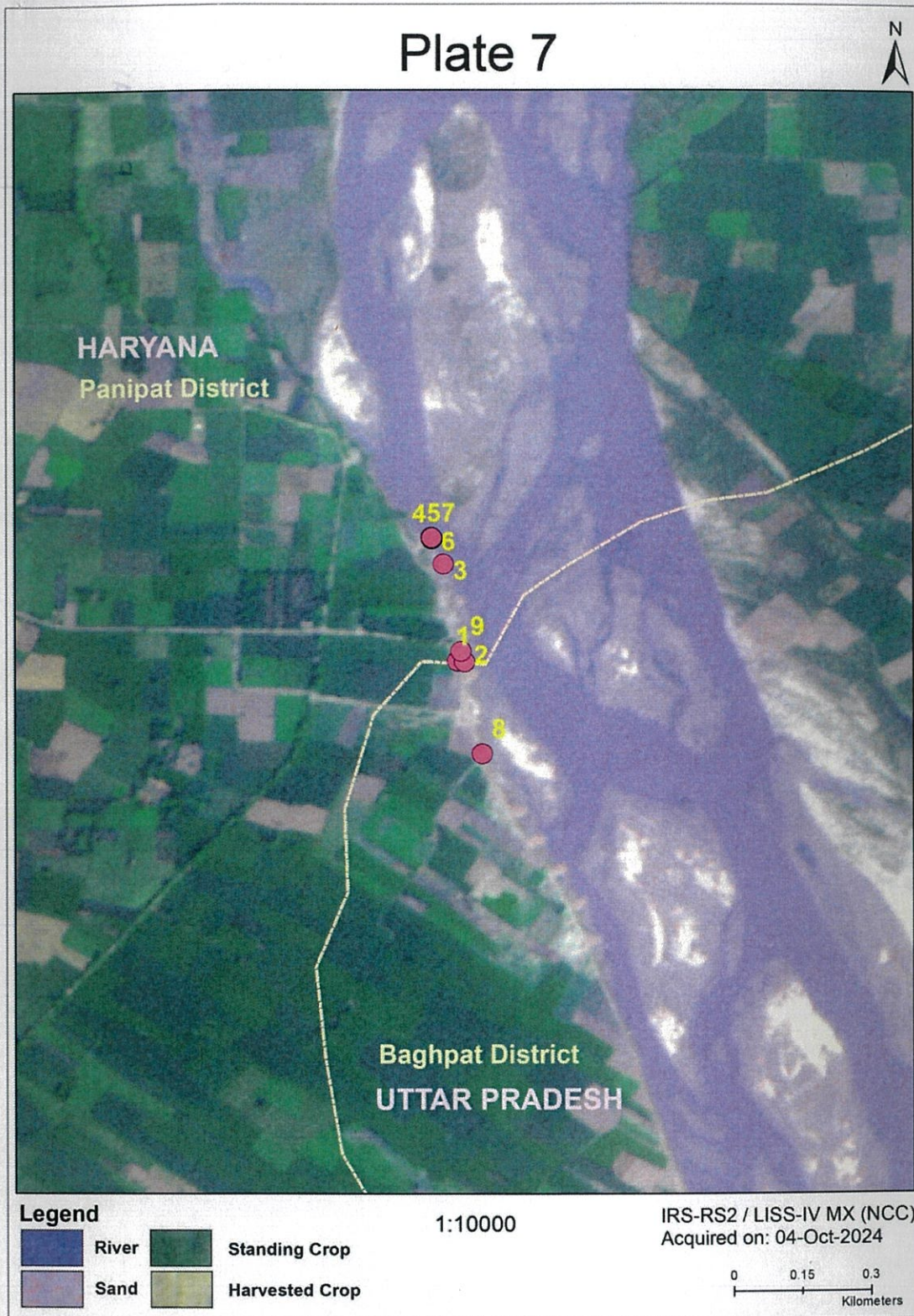


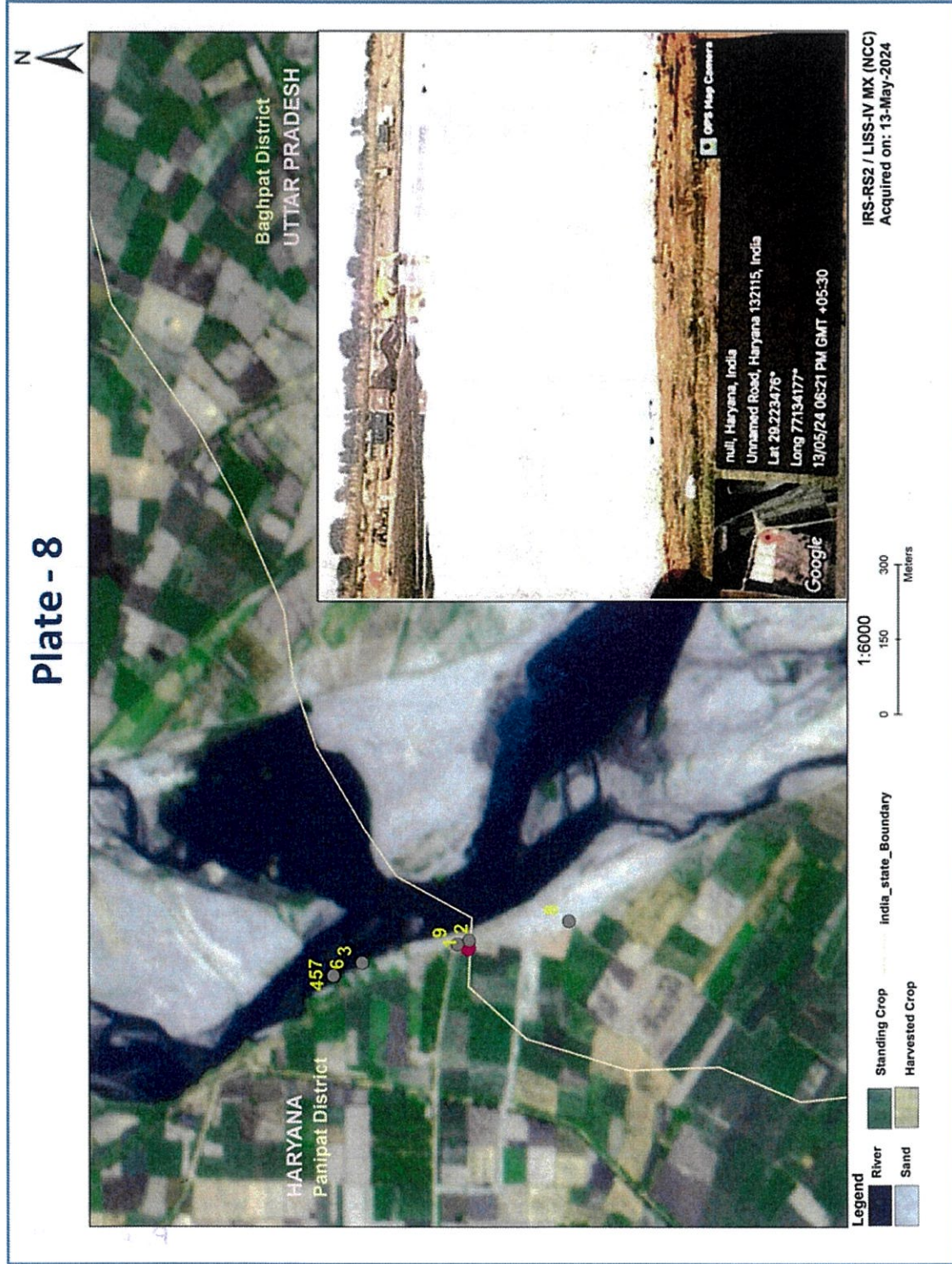
Figure 11 : RS-2 LISS-IV MX Image Acquired on 04-Oct-2024

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The plate-7/Figure-11 shows the satellite data of ResourceSat-2 LISS-IV MX, whose spatial resolution is 5m and date of acquisition is on 04-Oct-2024.

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Annexure-2 : Mapping Satellite Images with Photos.



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Plate - 9



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