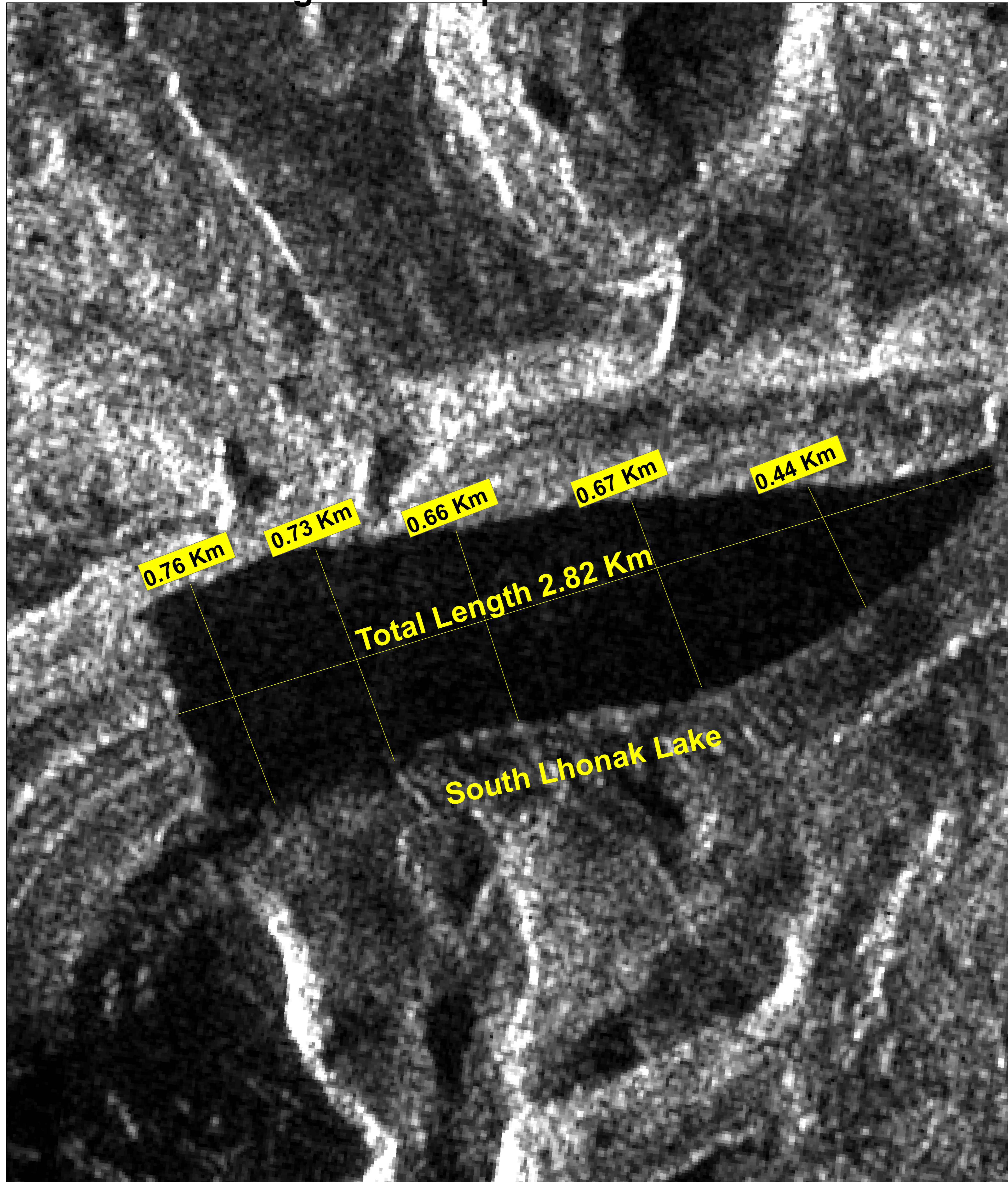


South Lhonak Lake outburst - Pre and Post

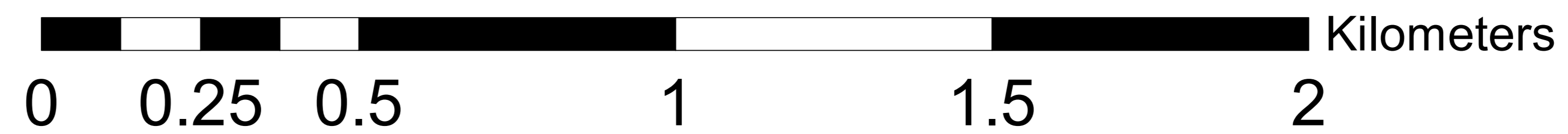
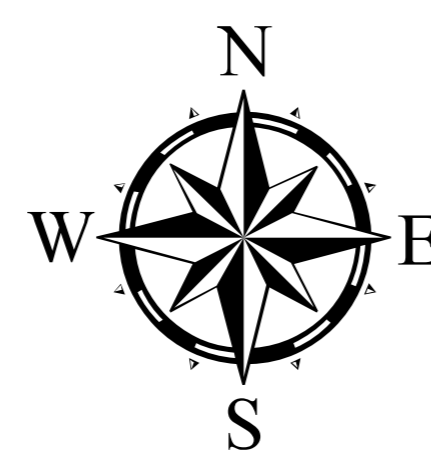
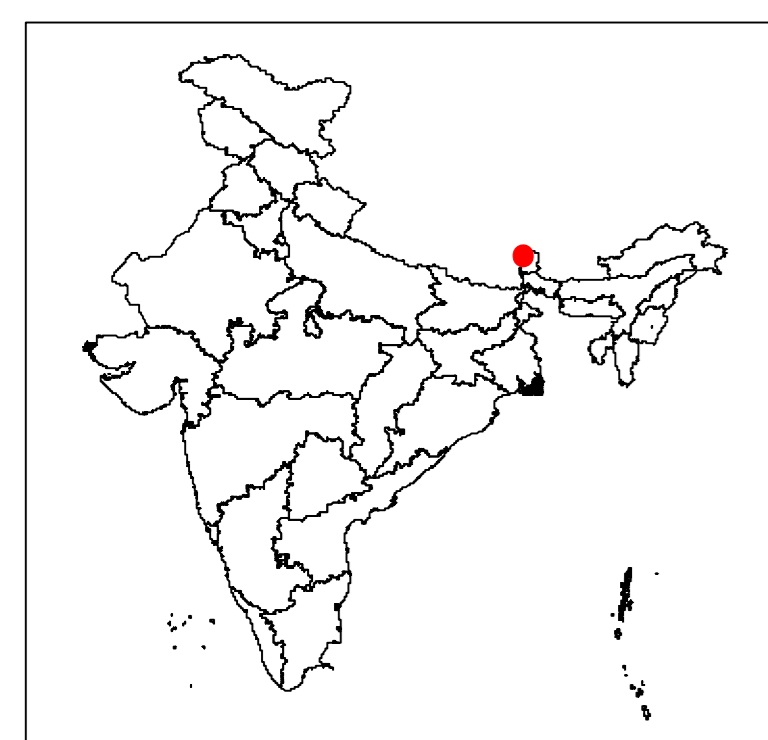
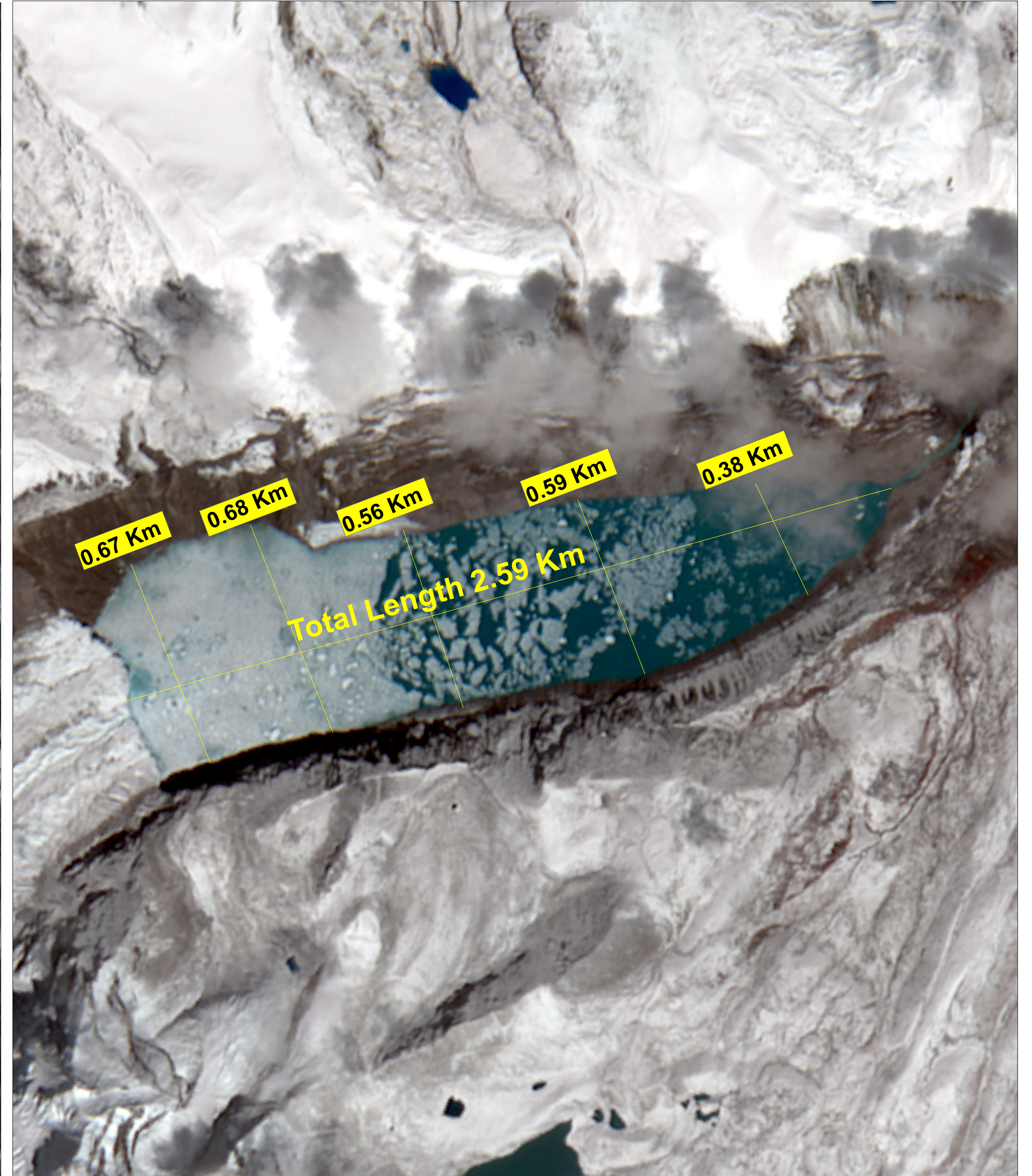
Date of Issue : 06.10.2023

MAP ID: 2023/FL/SIK/05-VAP/05-Oct-2023

Sentinel-1A image of 28-Sep-2023



Resourcesat-2A LISS IV image of 5-Oct-2023(1030Hrs)



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Findings:

We have acquired Optical satellite data of Resourcesat 2A LISS IV (5.8m) of pass 1030Hrs on 05.10.2023. The following are the observations made;

1. In the RiSAT 1 A MRS data of 04 October 2023 (06:00 hours pass), it was noticed that there is significant change in lake water-spread area of South Lhonak lake due to Calving of glacier materials from the glacier snout (resulted into water surge), status was same in RiSAT 1 A FRS image of 04 October 2023 (18:00 hours) also when compared with Sentinel 1 image of 28 Sep 2023 (18:00 hours) .
2. Cloud free optical high resolution satellite data of Resourcesat 2A LISS IV image (5.8m) acquired at 1030Hrs on 05.10.2023 indicate that the melting of floating ice sheet (about 1.5 km length from the glacier snout) is noticed (may be due to increase in temperature). Lake area is found to be about 130 hectares (reduction of 35 hectares lake area compared to pre satellite data of 28 Sep 2023).
3. Pre and post lake length and widths at different locations are indicated in the enclosed map.
4. Reasons for this phenomena may be analysed with rainfall / cloud burst /field information by the field authorities