सत्यमेव जयते

Monthly Monitoring Report
of
Glacial Lakes & Water Bodies in the Himalayan Region of Indian River Basins
(August, 2022)

Morphology & Climate Change Directorate

Central Water Commission

Department of Water Resources, River Development & Ganga Rejuvenation

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10.	Abstract (with Keywords): This document presents the details on monitoring of Glacial Lakes and water bodies in the Himalayan regionand Tibetan region, draining to India. The work has been carried out using remote sensing technique.The adopted methodology is indicated in the report. The change in water spread area for 902 GL&WBs has been worked out. The Glacial Lakes requiring vigorous monitoring have been identified for the month of August, 2022. Keywords: Glacial Lake, Water Bodies, Himalayas, Satellite Images, Remote Sensing				

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ABBREVIATIONS	
AR	Arunachal Pradesh
GEE	Google Earth Engine
GL	Glacial Lake
GLOF	Glacial Lake Outburst Flood
FCC	False Colour Composite
ha	Hectare
HP	Himachal Pradesh
J&K	Jammu & Kashmir
LAT	Latitude
LONG	Longitude
LU/LC	Land Use /Land Cover
NDWI	Normalised Difference Water Index
NDMA	National Disaster Management Authority
NRSC	National Remote Sensing Centre
SAR	Synthetic Aperture Radar
SDC	Swiss Agency for Development and Cooperation
SK	Sikkim
TAR	Tibet Autonomous Region
UID	Unique Identification
UK	Uttarakhand
WB	Water Body

Executive Summary

The Himalayan Region (HR) is facing important challenges in view of coping with the adverse effects of climate change. Physically, the shrinking of mountain glaciers and creation of expanding Glacial Lakesare amongst the most recognizable and dynamic impacts of climate warming in this environment. In combination with this altered stability of surrounding rock and ice walls, the potential threat from Glacial LakeOutburst Floods (GLOFs) is evolving over time. Therefore, under such changing environment, a close watch on the relative change in water spread area of even smaller lakes has become very crucialin this region.

Remote sensing technique being the most cost effective and reliable approach especially for remote and difficult to access terrain, has been appliedfor detecting water spread area of such lakes. For analysing and processing large number ofremote sensed satellite imageries,Google Earth Engine (GEE), which is anopen-source cloud computing platform, has been used. High resolution multi-spectral and microwave (SAR) images at 10m resolution from Sentinel satellitehave been analysed. This facilitated in detecting lakes even in cloudy conditions.

The water spread areas for Glacial Lakes and Water Bodieshas been calculated in an automatic manner. Manual digitisation, of the lakes was carried out wherever required. The algorithm for automation has been developed in-housein GEE. The detailed methodology is included in this report.

For the month of August, 2022, a total of 902 Glacial Lakes and Water Bodieshave been monitored. It includes 477 Glacial Lakes &Water Bodies, having water spread area greater than 50 ha, which are being monitored since 2011. All Glacial Lakes having size up to 10 ha as per NRSC inventory, 2009 have been monitored. Further, the critical Glacial Lakes as identified by Swiss agency for Development and Cooperation (SDC) for NDMA in their report titled "*Synthesis report on GLOF hazard and risk across the Indian Himalayan Region*" has also been included in monitoring.

The monitoring was based on analysis of15499 satellite images in the month of August, 2022. From disaster point of view, the base year, average area for last 5 and 10 years for 477 Glacial Lakes &Water Bodieshaving water spread area greater than 50 ha, has been considered to determine the change. However, for 425Glacial Lakes having size upto 10 ha or even smallerthe change in water spread area has been calculated with respect to month of August, 2022. 19 Glacial Lakes have shown an increase in water spread area greater than 40% requiring vigorous monitoring. 6 are in TAR, 5 are in India, 6 are in Nepal and2 are in Bhutan.

1. Introduction

1.1 Background

Glacial retreat due to climate change occurring in most parts of the Hindu Kush Himalaya has given rise to the formation of numerous new Glacial Lakes.The water in these Glacial Lakes accumulates behind loose naturally formed 'glacial/moraine dams' made of ice, sand, pebbles and ice residue as the glaciers melt.Different types of lakes may have different levels of hazard potentialdependingupon many factors like the nature of the damming materials, the position of the lake, the volume of the water, the nature and position ofthe associated mother glacier, physical and topographical conditions, and other physical conditions of the surroundings. Interaction between the above-mentioned risk factors and triggering processes like ice avalanches, debris flows, rockfall, earthquake or landslides reaching a lake strongly affect the risk of a lake outburst. For instance, moraine-dammed lakes located at the snout of a glacier have a high probability of breaching with high hazard potential whereas there is a reduced risk of breaching in case of erosion lakes.

Glacial Lake Outburst Flood (GLOF) is created when water dammed by a glacier or a moraine is released suddenly. Some of the Glacial Lakes are unstable and particularly moraine dammed lakes are potentially susceptible to sudden discharge of large volumes of water and debris which causes floods downstream. Climate change is expected to alter and potentially increase the probability of lake outbursts in the future.

1.2 Remote Sensing Technology

Remote sensing is the science of acquiring information about the Earth's surface without actually being in contact with it. This is done by sensing and recording reflected or emitted energy and processing, analysing, and applying that information. Satellite remote sensing (SRS) technology hascontributed significantly to the acquisition of Earth’s resources, thus helping in their better management. SRSplays a complementary role to other means of spatial data acquisitions i.e., through conventional procedures. Satellite remote sensing offers several unique advantages quick data collection, reliability, more accurate, repetitive collection, geometric integrity and digital storage, which makes it an ideal tool for mapping, inventorying and monitoring the natural resources.

Due to the remote location of Glaciers and Glacial Lakes their access is difficult, owing to tough and difficult terrain. Thus, preparation of inventory of Glacial Lakes using conventional methods requires extensive time and resources together with undergoing hardships in the field. Creating inventories and monitoring of the Glacial Lakes can be done quickly and correctly using satellite images and aerial photographs. Use of these

images and photographs for the evaluation of physical conditions of the area provides greater accuracy. The multi-stage approach using remotely sensed data and field investigation increases the ability and accuracy of the work. Visual and digital image analysis techniques integrated with techniques of geographic information systems (GIS) are very useful for the study of Glacier andGlacial Lakes.

1.3 Objectives

The broadobjectives of the study are

- To monitor the spatial extent in terms of water spread area of the Glacial Lakes &Water Bodies on monthly basis during June to October.
- To detect changes in water spread area of GL&WBswith respect to historical information&base year.
- To detect any sharp change in area of GL&WBs for disaster purpose
- To share the monitoring reports with concerned stakeholders including National Disaster Management Authority / State Disaster Management Authority.

2. Study Area &Satellite Data Used

2.1 Study Area

The present study area covers theGL& WB lying in the region of Himalaya and Tibet that drains to India as shown in

Figure 2. The study area extends across different countries, namely, India, Nepal, Bhutan and China.

The Glacial Lakes and Water Bodies taken up for the monitoring in the study area are as follows:

- Monitoring of 477Glacial Lakes and Water Bodies, having water spread area greater than 50 ha which have been included from the inventory of Glacial Lakes &Water Bodies in the Indian Himalayan region using satellite data of the year 2009 prepared by NRSC (Ref: NRSC Report No. NRSC-RS&GISAA-WRG-CWC-Lakes-May2011-TR255).
- Monitoring of 385 Glacial Lakes,having spatial extent greater than 10 ha, which have been taken from the inventory of Glacial Lakes &Water Bodies in the Indian Himalayan region using satellite data of the year 2009 prepared by NRSC (Ref: NRSC Report No. NRSC-RS&GISAA-WRG-CWC-Lakes-May2011-TR255).
- Monitoring of 57 Glacial Lakes, which have been listed as high priority lakes, as per Synthesis report on GLOF hazard and risk across the Indian Himalayan Region prepared by Swiss Agency for Development and Cooperation (SDC) for NDMA.

A total of 902 Glacial Lakes and Water Bodieshave been monitored. Of these, 544 are Glacial Lakes and 358 are Water Bodies. AllGlacial Lakes upto size of 10 ha as per NRSC 2009 inventoryandfew moreGlacial Lakes of sizeeven smaller than 10 ha as identified by SDC have also been includedfor monitoring. The breakup of Glacial Lakes and Water Bodies is shown in Figure 1.

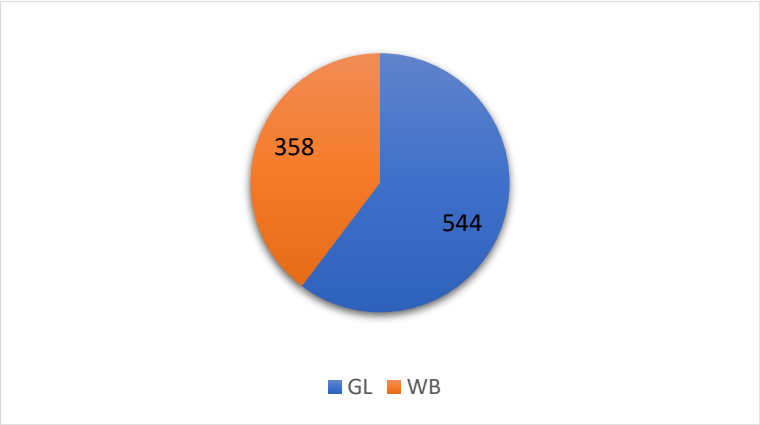

FIGURE 1: LAKE TYPE DISTRIBUTION

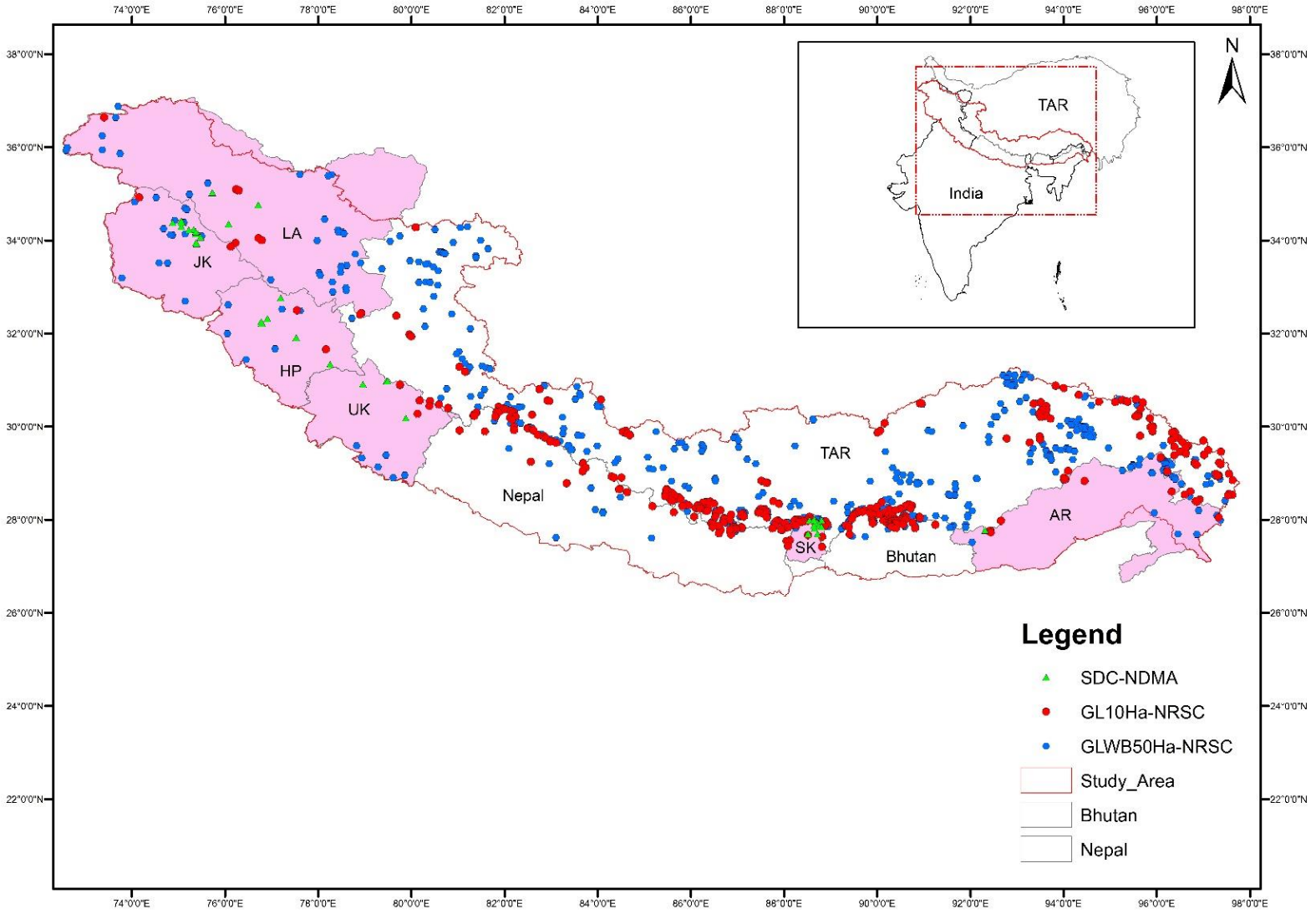

FIGURE 2: LOCATIONS OF GLACIAL LAKES &WATER BODIES IN THE STUDY AREA

2.2 Satellite Data Used

2.2.1 Sentinel-2 MSI

Itis a wide-swath, high-resolution, multi-spectral imaging mission, supporting Copernicus Land Monitoring studies, including the monitoring of vegetation, soil and water cover, as well as observation of inland waterways and coastal areas. The SENTINEL-2 Multispectral Instrument (MSI) samples 13 spectral bands: four bands at 10 metres, six bands at 20 metres and three bands at 60 metres spatial resolution. The revisit frequency of each single SENTINEL-2 satellite is 10 day and the combined constellation revisit is 5 day.

2.2.2 Sentinel-1SAR (Micro)

It has C-band synthetic aperture radar (SAR) active sensor which can observe the Earth's surface at any time of the day or night, regardless of weather and environmental conditions. SAR has the advantage of operating at wavelengths not impeded by cloud cover or lack of illumination.SAR actively transmits microwave signals towards the Earth and receives a portion of transmitted energy as backscatter from the ground. The SAR instrument provides radar backscatter measurements influenced by the terrain structure and surface roughness. Generally, the more roughness or structure on the ground, the greater the backscatter. Rough surfaces will scatter the energy and return a significant amount back to the antenna resulting in a bright feature. The repeat orbit cycle of each Sentinel-1 satellite is 12-day.

The numbers of satellite images processed for the month of August-2022 were 15499. Out of which,9595 are Multispectral images and 5904 were Microwave images as shown inFigure 3.

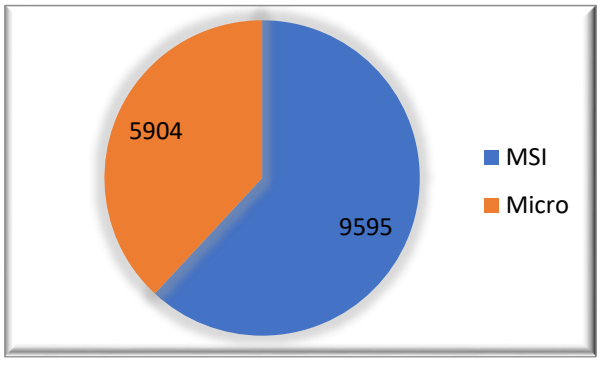

FIGURE 3: ANALYSED SATELLITE IMAGES DISTRIBUTION

3. Methodology

Google Earth Engine (GEE) being a planetary-scale platform for Earth science data &analysishas been used to process the Multispectral and Microwave Sentinel image data for the monitoring of Glacial Lakes & water bodies. The Microwave and Multispectral Satellite works on different principle, hence separate methodology has been applied to compute the water spread area of GL&WBs in an automatic manner.

Multispectral data consist of visible and infrared bands. The spectral combination of NIR, red & green bands is used to generate false colour composite (FCC). The Normalised difference water Index (NDWI) is computed using green and NIR band. The process of calculation of NDWI and FCC is repeated for each GL&WB. The OTSU algorithm is further used to identify the threshold of NDWI for segregating water pixels from other types of features. The detected water pixels are further summed to calculate water spread area in the region of interest.

Microwave data of Sentinel-1 is a phase-preserving dual polarisation SAR system. It can transmit a signal in either horizontal (H) or vertical (V) polarisation, and then receive in both H and V polarisations. The backscatter intensity of vertical transmit vertical receive (VV) band has been used to distinguish water pixels from other types of features. The OTSU algorithm is further used to identify the threshold of backscatter intensity for segregation. The water spread area of each lake has been calculated by summation of water pixelsin the region of interest.

It has also been observed that some lakes are required to the delineated manually based on the visual interpretation of satellite images. This is due to the fact that region being monitored has rugged terrain with steep mountains and valleys, which may lead to effects like foreshortening, layover, mountain shadows etc in the microwave/SAR data. Also, the cloud cover on many occasions hinders the performance of Multispectral satellite data. Thus, creating difficulty in interpreting the signal through automatic means.

The change detection in water spread area of Lake has been calculated for following three cases.

- Difference between the current area of lake and base year
- Difference between the current area of lake and Last five years average area
- Difference between the current area of lake and Last ten years average area

The minimum of change observed in three cases has been adopted to identify increase, decrease and no change in water spread area.

The detailed flow-chart of methodology for automatic monitoring of Glacial Lakes and Water Bodies using satellite images is given below in Figure 4.

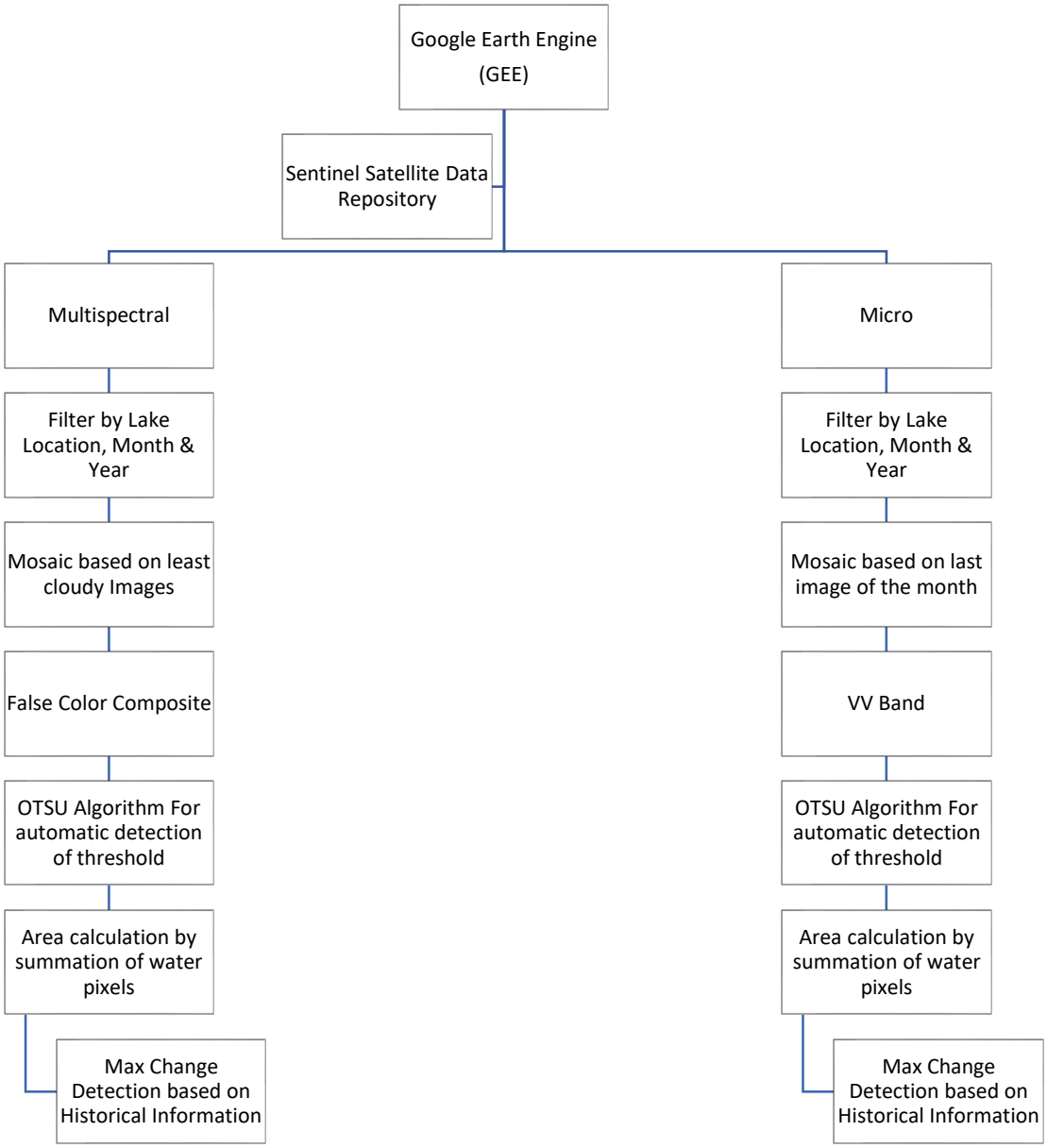

FIGURE 4: METHODOLOGY OF AUTOMATIC MONITORING OF GLACIAL LAKES &WATER BODIES USING SATELLITE IMAGES

4. Results

The water spread area of 902Glacial Lakes &Water Bodieswas calculated for the month of August 2022 in automatic manner and manually digitised, wherever required using the methodology described above. It includes 477 GL&WBshaving size greater than 50 hawhicharebeingmonitored since 2011.

For 477 GL&WBs, the water spread area of August,2022 andmaximumdetectedchange in water spread area with respect to base year, last 5 years average area& last 10 years average area is shown inTable 1 to G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

- Unobservable (as per NRSC) , Ø indicates small rivulet/first order stream

Table 4.

Theremaining425Glacial Lakes having size up to 10 ha or samllerwere monitored from this yearand their change detection with respect to June,2022 was calculated. The water spread area for such lakes in the month ofAugust,2022is shown inTable 7 to Table 7.

It was observed that 305 GL&WBshave shown increase in water spread area,419have shown decrease in water spread area,105have shown no changein water spread area and change detection for remainingGlacial Lakes couldnotbeperformed.The same is shown in Figure 5.

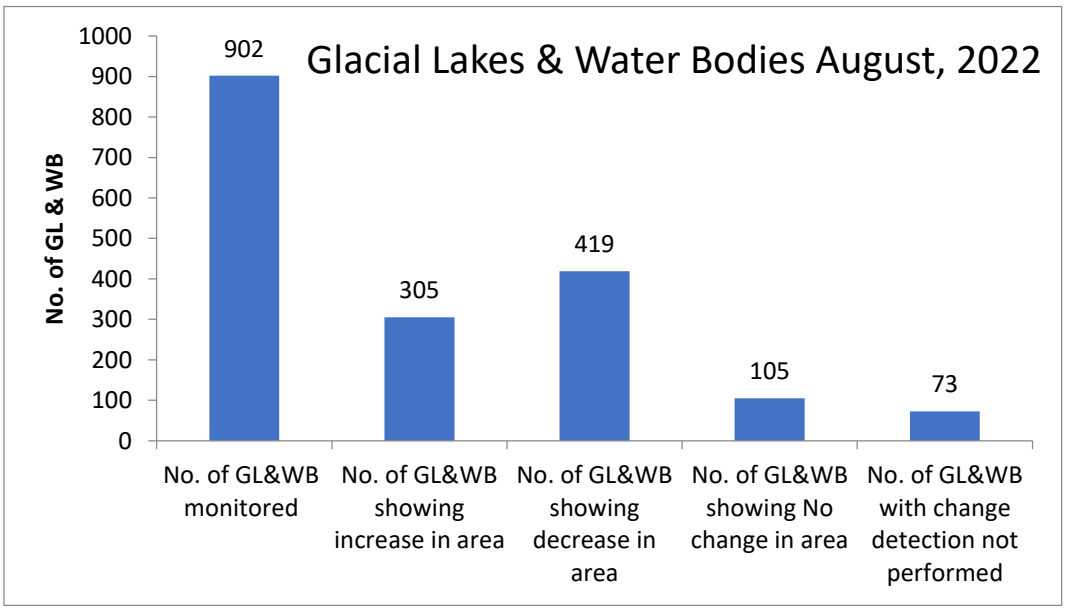

FIGURE 5: OVERALL CHANGES IN WATER SPREAD AREA OF GL&WBS FOR AUGUST,2022

5. Conclusions

- 3 Glacial Lakes of size greater than 50 haare requiredto be **vigorously monitored** for disaster purpose. These lakeshaveshownincrease in water spread area greater than 40%. 2 are in TARand 1 in India. The GL lying in Indiais inSikkim. The details of these lakes have been highlighted in yellow colorinTable 1.
- Out of the lakes which are identified as critical by SDC**,** 2 are required to be **vigorously monitored** for disaster purpose. These lakes have shown increase in water spread area greater than 40% wrt area of June-2022. These two lakes are lying in SikkimandHimachal Pradesh. The details of these lakes have been highlighted in yellow color inTable 6.
- 14 Glacial Lakes of size greater than 10 habut less than 50 haare requiredto be **vigorously monitored** for disaster purpose. These lakes have shown increase in water spread area greater than 40%. 6 are in Nepal, 4 are in TAR, 2 are in Indiaand 2 are in Bhutan. Out of 2 GL lying in India, 1 is in Indus Basin and 1 in Brahmaputra Basin. The details of these lakes have been highlighted in yellow colorinTable 7.
- Out of 12 Glacial Lakes identified in June,2022for vigorously monitoring, 11 GL are found to be stable as per current analysis and only 1 requires vigorously monitoring. Out of 8 Glacial Lakes identified in July, 2022 for vigorously monitoring, 1 GL is found to be stable as per current analysis and 7 requires vigorously monitoring. Thestable lakes have been highlighted in orangecolor inTable 2 toTable 5.
- Google Earth Engine (GEE)has proved to be a very useful and efficient tool in processing large information of 12853, 14859 and 15499satellite images in month of June, July and August,2022 respectively.
- Automatic algorithm developed in GEE has expedited the process of calculation of water spread area, which has resulted in increase of monitoring of number of lakes from 477 to 902 this year without any increase in manpower resource and financial implications.
- Use of Microwave satellite image in conjunction with multispectral satellite image (MSI)has overcome the short-coming of cloud cover leading to monitoring of all 902 Lakes in all types of weather conditions. This has further increased availability of satellite images atshorter frequency interval, which willfacilitatein reducing the monitoring interval in near future.
- The use of Sentinel satellite image has increased the spatial resolution from 56mto 10m leading to enhancement of monitoring accuracy. Sentinel images have also aided in improving the temporal resolution.

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*TABLE 1: LIST OF GL&WBSHAVING WATER SPREAD GREATER THAN 50 HA SHOWING MORE THAN 40% INCREASE IN AREA (**REQUIRING VIGOROUS MONITORING**)*

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
1	03_82O_047	NRSC	-	CH_1039	3574	WB	Brahmaputra	Dihang	China	45	-	8	16	181.25
2	03_82O_044	NRSC	-	CH_1037	3552	WB	Brahmaputra	Dihang	China	94	-	-	35	168.57
3	03_91C_074	NRSC	-	CH_1102	4258	GL	Brahmaputra	Dibang	China	51	-	17	21	142.86
4	03_78I_085	NRSC	-	BH_166	4764	WB	Brahmaputra	Puna Tsang Chhu	Bhutan	74	-	12	31	138.71
5	03_82K_042	NRSC	-	CH_898	4364	WB	Brahmaputra	Ø	China	182	-	35	85	114.12
6	03_91C_005	NRSC	-	CH_1056	4926	GL	Brahmaputra	Ø	China	104	-	16	50	108.00
7	03_91H_017	NRSC	-	CH_1182	4590	WB	Brahmaputra	Lohit	China	37	-	14	18	105.56

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
8	03_91C_049	NRSC	-	AP_95	4261	WB	Brahmaputra	Dibang	India	65	-	15	32	103.13
9	03_82K_040	NRSC	-	CH_896	4329	WB	Brahmaputra	Ø	China	52	-	23	27	92.59
10	03_91C_070	NRSC	-	CH_1098	4252	WB	Brahmaputra	Dibang	China	55	-	21	29	89.66
11	03_91C_078	NRSC	-	CH_1106	3694	WB	Brahmaputra	Dibang	China	48	-	26	26	84.62
12	03_82K_045	NRSC	-	CH_901	4572	WB	Brahmaputra	Ø	China	51	-	28	25	82.14
13	03_92A_005	NRSC	-	AP_203	3391	WB	Brahmaputra	Lohit	India	47	-	17	27	74.07
14	03_82K_049	NRSC	-	CH_905	4180	WB	Brahmaputra	Ø	China	36	-	18	21	71.43
15	03_91H_011	NRSC	-	CH_1176	4494	WB	Brahmaputra	Lohit	China	60	-	37	32	62.16
16	03_82K_	NRSC	-	CH_95	3964	WB	Brahma	Ø	China	37	-	15	23	60.87

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	103			9			putra							
17	03_78A_021	NRSC	-	SK_26	5431	GL	Brahmaputra	Teesta	India	89	56	53	50	58.93
18	03_77P_023	NRSC	-	CH_593	4235	WB	Brahmaputra	KuriChhu	China	79	-	50	43	58.00
19	03_82K_007	NRSC	-	CH_863	4294	WB	Brahmaputra	Ø	China	121	-	49	79	53.16
20	03_91D_080	NRSC	-	CH_1135	4295	WB	Brahmaputra	Lohit	China	37	-	25	20	48.00
21	03_91C_042	NRSC	-	AP_89	4531	WB	Brahmaputra	Dibang	India	47	-	19	32	46.88
22	03_82J_024	NRSC	-	CH_854	4362	WB	Brahmaputra	Ø	China	55	-	25	38	44.74
23	03_82F_016	NRSC	-	CH_741	4632	WB	Brahmaputra	Ø	China	44	-	28	31	41.94

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

- Unobservable (as per NRSC) , Ø indicates small rivulet/first order stream

TABLE 2: GL&WBSHAVING WATER SPREAD GREATER THAN 50 HA THAT HAVE SHOWN INCREASE IN WATER SPREAD AREA

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
24	03_82G_065	NRSC	-	CH_826	4148	WB	Brahmaputra	Ø	China	81	-	55	59	37.29
25	03_77L_043	NRSC	-	CH_552	5200	GL	Brahmaputra	KuriChhu	China	256	178	188	189	35.45
26	03_78M_010	NRSC	-	BH_188	4496	WB	Brahmaputra	Dangme Chhu	Bhutan	47	-	35	33	34.29
27	02_71P_054	NRSC	-	CH_242	4859	0	Ganga	Arun Kosi	China	102	-	76	75	34.21
28	03_82J_019	NRSC	-	CH_849	3944	GL	Brahmaputra	Ø	China	85	-	64	52	32.81
29	03_78M_022	NRSC	-	BH_197	4549	WB	Brahmaputra	Dangme Chhu	Bhutan	74	-	54	56	32.14
30	03_82N_019	NRSC	-	CH_990	4877	WB	Brahmaputra	Ø	China	51	-	39	39	30.77

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
31	02_71D_004	NRSC	16G	NP_45	4064	GL	Ganga	Trisuli	Nepal	128	75	98	90	30.61
32	03_71G_013	NRSC	-	CH_422	4543	WB	Brahmaputra	Ø	China	361	228	277	250	30.32
33	03_91C_059	NRSC	-	CH_1089	4303	WB	Brahmaputra	Dibang	China	99	-	76	72	30.26
34	03_82N_030	NRSC	-	CH_1001	4462	GL	Brahmaputra	Ø	China	138	-	106	100	30.19
35	02_62J_003	NRSC	254G	NP_19	4854	WB	Ganga	Karnal	Nepal	58	-	45	42	28.89
36	03_77L_010	NRSC	-	CH_526	4457	WB	Brahmaputra	Ø	China	51	-	40	37	27.50
37	03_82J_008	NRSC	-	CH_838	4036	GL	Brahmaputra	Ø	China	212	166	167	165	26.95
38	03_78I_023	NRSC	-	BH_104	5055	GL	Brahmaputra	Manas Chhu&MangdeCh	Bhutan	65	52	48	44	25.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
								hu						
39	03_82G_060	NRSC	-	CH_821	4577	WB	Brahmaputra	Ø	China	55	-	34	44	25.00
40	03_91D_009	NRSC	-	AP_108	4037	WB	Brahmaputra	Dibang	India	46	-	37	30	24.32
41	03_91D_107	NRSC	-	AP_163	3769	WB	Brahmaputra	Lohit	India	67	-	49	54	24.07
42	03_82L_009	NRSC	-	CH_971	3893	GL	Brahmaputra	Ø	China	74	55	60	54	23.33
43	01_61C_010	NRSC	-	CH_38	4495	WB	Indus	Indus	China	148	94	118	121	22.31
44	01_61C_011	NRSC	-	CH_39	4494	WB	Indus	Indus	China	653	434	539	472	21.15
45	03_91C_052	NRSC	-	CH_1085	4591	WB	Brahmaputra	Lohit	China	46	-	34	38	21.05

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
46	03_91C_069	NRSC	-	AP_101	3245	WB	Brahmaputra	Dibang	India	87	72	46	45	20.83
47	02_71P_040	NRSC	126G	CH_228	4962	WB	Ganga	Arun Kosi	China	158	131	129	115	20.61
48	02_71P_029	NRSC	43G	CH_217	5045	GL	Ganga	Arun Kosi	China	123	76	102	82	20.59
49	03_78M_020	NRSC	-	BH_195	4157	WB	Brahmaputra	Dangme Chhu	Bhutan	71	59	54	56	20.34
50	03_82P_010	NRSC	-	AP_67	1676	WB	Brahmaputra	Dibang	India	97	-	81	68	19.75
51	03_71C_011	NRSC	-	CH_404	4684	WB	Brahmaputra	Ø	China	183	127	153	138	19.61
52	03_91C_064	NRSC	-	AP_100	3972	WB	Brahmaputra	Dibang	India	86	-	72	65	19.44
53	03_77H_00	NRSC	-	CH_478	4714	WB	Brahmaput	Ø	China	275	231	148	145	19.05

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	3						ra							
54	03_78A_014	NRSC/SDC	Very High Risk	SK_20	5234	GL	Brahmaputra	Teesta	India	166	132	140	125	18.57
55	03_78E_029	NRSC	-	BH_73	4250	WB	Brahmaputra	Puna Tsang Chhu	Bhutan	39	-	33	28	18.18
56	02_72I_025	NRSC	66G	NP_78	4884	GL	Ganga	Sun Kosi	Nepal	147	102	126	111	16.67
57	02_78A_003	NRSC	24G	CH_269	5522	GL	Ganga	Arun Kosi	China	177	131	152	137	16.45
58	03_91H_010	NRSC	-	CH_1175	4433	WB	Brahmaputra	Lohit	China	85	-	73	66	16.44
59	02_71P_019	NRSC	-	CH_207	4199	GL	Ganga	Arun Kosi	China	64	-	55	46	16.36
60	03_78E_026	NRSC	-	CH_613	5161	GL	Brahmaputra	Amo Chhu	China	50	-	43	43	16.28
61	03_77L_01	NRSC	-	CH_530	5289	WB	Brahmaput	Ø	China	43	-	37	36	16.22

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	4						ra							
62	03_82N_004	NRSC	-	CH_975	4290	GL	Brahmaputra	Ø	China	123	106	71	75	16.04
63	03_77L_066	NRSC	-	BH_34	4896	GL	Brahmaputra	Manas Chhu&MangdeChhu	Bhutan	155	134	132	133	15.67
64	03_62K_012	NRSC	-	CH_316	5368	GL	Brahmaputra	Ø	China	98	78	85	75	15.29
65	03_82D_003	NRSC	-	CH_709	4408	WB	Brahmaputra	Ø	China	53	46	44	43	15.22
66	03_82K_017	NRSC	-	CH_873	4397	WB	Brahmaputra	Ø	China	178	-	146	155	14.84
67	03_77H_023	NRSC	-	CH_492	5313	WB	Brahmaputra	Ø	China	47	-	41	33	14.63
68	02_71P_04	NRSC	108G	CH_231	5206	GL	Ganga	Arun Kosi	China	88	66	77	64	14.29

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	3													
69	03_91C_038	NRSC	-	AP_85	4002	WB	Brahmaputra	Dibang	India	97	-	73	85	14.12
70	01_52H_004	NRSC	-	HP_5	4155	GL	Indus	Chenab	India	162	-	142	114	14.08
71	02_62F_019	NRSC	144G	NP_12	5039	WB	Ganga	Karnal	Nepal	73	56	64	59	14.06
72	01_52H_005	NRSC	-	HP_6	4286	WB	Indus	Chenab	India	49	-	43	38	13.95
73	02_78A_004	NRSC	194G	CH_270	5603	GL	Ganga	Arun Kosi	China	116	85	102	95	13.73
74	03_82F_022	NRSC	-	CH_747	4200	GL	Brahmaputra	Ø	China	111	98	89	93	13.27
75	02_77D_009	NRSC	71G	CH_264	5296	GL	Ganga	Arun Kosi	China	63	56	46	44	12.50

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
76	01_52K_014	NRSC	-	JK_222	4535	WB	Indus	Indus	India	498	446	413	410	11.66
77	02_72I_027	NRSC	41G	NP_80	4977	GL	Ganga	Sun Kosi	Nepal	87	78	73	73	11.54
78	03_62J_026	NRSC	-	CH_298	5078	GL	Brahmaputra	Ø	China	137	115	123	116	11.38
79	03_78M_019	NRSC	-	BH_194	4697	WB	Brahmaputra	Dangme Chhu	Bhutan	50	-	45	45	11.11
80	03_91H_040	NRSC	-	CH_1205	4324	WB	Brahmaputra	Lohit	China	50	-	45	41	11.11
81	03_82B_028	NRSC	-	CH_654	4998	WB	Brahmaputra	Ø	China	50	-	45	40	11.11
82	03_82K_037	NRSC	-	CH_893	4147	WB	Brahmaputra	Ø	China	61	55	21	30	10.91
83	03_82O_016	NRSC	-	CH_1023	4374	WB	Brahmaputra	Dihang	China	104	94	21	41	10.64

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
84	02_71L_001	NRSC	-	CH_156	5106	WB	Ganga	Arun Kosi	China	94	81	85	82	10.59
85	03_71G_007	NRSC	-	CH_416	5153	WB	Brahmaputra	Ø	China	209	188	189	187	10.58
86	02_71P_047	NRSC	81G	CH_235	5614	GL	Ganga	Arun Kosi	China	95	82	86	72	10.47
87	03_82K_074	NRSC	-	CH_930	4553	WB	Brahmaputra	Ø	China	75	-	68	64	10.29
88	02_71H_028	NRSC	15G	CH_148	5174	WB	Ganga	Sun Kosi	China	215	194	194	195	10.26
89	03_62O_002	NRSC	-	CH_347	4587	WB	Brahmaputra	Ø	China	54	47	49	42	10.20
90	03_77D_005	NRSC/SDC	Very High Risk	SK_5	5249	GL	Brahmaputra	Teesta	India	108	98	94	84	10.20
91	03_77K_01	NRSC	-	CH_517	4455	WB	Brahmaput	Ø	China	119	106	108	106	10.19

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	5						ra							
92	03_91D_010	NRSC	-	AP_109	3323	WB	Brahmaputra	Dibang	India	44	-	40	34	10.00
93	03_77L_044	NRSC	-	BH_19	4385	GL	Brahmaputra	Puna Tsang Chhu	Bhutan	133	121	103	110	9.92
94	03_91C_040	NRSC	-	AP_87	4450	WB	Brahmaputra	Lohit	India	78	-	71	60	9.86
95	03_82O_062	NRSC	-	AP_55	3612	WB	Brahmaputra	Dibang	India	46	42	9	24	9.52
96	03_82G_055	NRSC	-	CH_816	4619	WB	Brahmaputra	Ø	China	47	-	31	43	9.30
97	03_71K_003	NRSC	-	CH_426	4982	WB	Brahmaputra	Ø	China	95	73	87	76	9.20
98	02_72I_011	NRSC	10G	NP_64	5034	GL	Ganga	Sun Kosi	Nepal	174	103	160	130	8.75
99	01_43K_01	NRSC	-	JK_115	3521	WB	Indus	Jhelum	India	150	134	138	126	8.70

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	4													
100	03_77P_009	NRSC	-	CH_580	5086	WB	Brahmaputra	Ø	China	115	104	106	100	8.49
101	03_82O_064	NRSC	-	AP_57	3689	WB	Brahmaputra	Dihang	India	40	-	37	31	8.11
102	03_78I_051	NRSC	-	BH_132	5074	GL	Brahmaputra	Manas Chhu&MangdeChhu	Bhutan	121	112	88	95	8.04
103	02_71H_029	NRSC	1G	CH_149	5098	GL	Ganga	Sun Kosi	China	522	484	411	452	7.85
104	02_72I_023	NRSC	227G	NP_76	5232	GL	Ganga	Sun Kosi	Nepal	88	82	70	72	7.32
105	01_61C_022	NRSC	-	CH_50	4339	WB	Indus	Indus	China	1674	1494	1560	1459	7.31
106	03_62O_032	NRSC	-	CH_377	5012	WB	Brahmaputra	Ø	China	59	-	55	45	7.27

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
107	02_72M_007	NRSC	33G	CH_253	4950	GL	Ganga	Arun Kosi	China	104	88	97	89	7.22
108	03_71G_006	NRSC	-	CH_415	5065	WB	Brahmaputra	Ø	China	1040	970	955	933	7.22
109	03_82G_051	NRSC	-	CH_812	4735	WB	Brahmaputra	Ø	China	45	-	42	35	7.14
110	03_77L_033	NRSC	-	BH_13	5176	GL	Brahmaputra	Ø	Bhutan	211	186	197	185	7.11
111	02_77D_008	NRSC	266G	CH_263	5285	GL	Ganga	Arun Kosi	China	46	-	43	34	6.98
112	03_78E_010	NRSC	-	CH_606	4582	WB	Brahmaputra	Ø	China	46	-	43	37	6.98
113	03_62O_042	NRSC	-	CH_387	4964	WB	Brahmaputra	Ø	China	62	58	56	55	6.90
114	03_71G_01	NRSC	-	CH_423	4606	WB	Brahmaput	Ø	China	237	139	222	181	6.76

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	4						ra							
115	01_61C_002	NRSC	-	CH_30	4494	WB	Indus	Indus	China	877	717	822	779	6.69
116	03_91C_014	NRSC	-	CH_1065	4033	GL	Brahmaputra	Ø	China	48	-	45	42	6.67
117	03_91H_005	NRSC	-	CH_1170	4123	WB	Brahmaputra	Lohit	China	64	56	60	46	6.67
118	03_77L_041	NRSC	-	CH_550	5214	GL	Brahmaputra	KuriChhu	China	65	-	61	57	6.56
119	03_77L_042	NRSC	-	CH_551	5057	GL	Brahmaputra	KuriChhu	China	66	62	61	60	6.45
120	03_91D_041	NRSC	-	AP_135	3526	WB	Brahmaputra	Dibang	India	117	110	103	85	6.36
121	02_53P_001	NRSC	-	UK_9	210	WB	Ganga	Ganga	India	1973	1855	1621	1567	6.36

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
122	03_78E_009	NRSC	-	CH_605	4580	WB	Brahmaputra	Ø	China	187	176	168	164	6.25
123	02_72M_009	NRSC	51G	NP_86	4932	GL	Ganga	TamurKosi	Nepal	68	-	64	56	6.25
124	03_71O_006	NRSC	-	CH_442	4738	WB	Brahmaputra	Ø	China	122	104	115	109	6.09
125	01_62E_005	NRSC	-	CH_80	5174	WB	Indus	Indus	China	210	193	198	187	6.06
126	02_71L_032	NRSC	122G	CH_187	5250	GL	Ganga	Sun Kosi	China	54	51	51	51	5.88
127	02_71L_010	NRSC	185G	CH_165	5387	GL	Ganga	Sun Kosi	China	56	-	53	46	5.66
128	02_71H_008	NRSC	-	CH_128	5152	GL	Ganga	Arun Kosi	China	115	99	109	101	5.50
129	03_82K_00	NRSC	-	CH_858	3998	WB	Brahmaput	Ø	China	60	57	50	44	5.26

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	2						ra							
130	01_61G_002	NRSC	-	CH_63	4663	WB	Indus	Indus	China	1376	1218	1308	1264	5.20
131	01_52K_012	NRSC	-	JK_220	4695	WB	Indus	Indus	India	168	160	159	156	5.00
132	03_77L_013	NRSC	-	CH_529	5191	WB	Brahmaputra	Ø	China	359	342	327	315	4.97
133	02_71P_022	NRSC	34G	CH_210	5439	GL	Ganga	Arun Kosi	China	86	82	82	70	4.88
134	03_82J_023	NRSC	-	CH_853	4315	WB	Brahmaputra	Ø	China	108	101	103	99	4.85
135	01_61C_014	NRSC	-	CH_42	4279	WB	Indus	Indus	China	326	305	311	298	4.82
136	01_52K_010	NRSC	-	JK_218	5313	WB	Indus	Shyok	India	155	148	140	136	4.73

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
137	03_62O_041	NRSC	-	CH_386	4963	WB	Brahmaputra	Ø	China	224	208	214	205	4.67
138	03_92E_001	NRSC	-	AP_206	4206	WB	Brahmaputra	Lohit	India	45	-	43	30	4.65
139	03_77L_072	NRSC	-	BH_40	5201	GL	Brahmaputra	Manas Chhu&MangdeChhu	Bhutan	92	88	79	82	4.55
140	03_82O_029	NRSC	-	CH_1032	3345	WB	Brahmaputra	Dihang	China	71	68	44	45	4.41
141	02_71L_004	NRSC	50G	CH_159	5518	GL	Ganga	Arun Kosi	China	119	78	114	92	4.39
142	01_43J_004	NRSC	5I	JK_82	4078	WB	Indus	Jhelum	India	73	70	68	63	4.29
143	03_62O_040	NRSC	-	CH_385	4896	WB	Brahmaputra	Ø	China	124	112	119	113	4.20
144	02_71H_00	NRSC	-	CH_122	4650	WB	Ganga	Arun Kosi	China	2564	2353	2466	2390	3.97

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	2													
145	03_77L_012	NRSC	-	CH_528	5014	WB	Brahmaputra	Ø	China	30178	28995	29060	28965	3.85
146	02_72M_005	NRSC	139G	CH_251	5141	GL	Ganga	Arun Kosi	China	82	79	78	69	3.80
147	03_82N_033	NRSC	-	CH_1004	4357	GL	Brahmaputra	Ø	China	89	86	69	67	3.49
148	01_43N_030	NRSC	-	JK_157	3799	WB	Indus	Jhelum	India	90	87	76	77	3.45
149	03_82J_025	NRSC	-	CH_855	4038	WB	Brahmaputra		China	61	59	45	41	3.39
150	02_62P_003	NRSC	4G	NP_36	4937	GL	Ganga	Trisuli	Nepal	341	330	320	298	3.33
151	01_52O_001	NRSC	-	CH_4	4242	WB	Indus	Shyok	China	70219	66075	67960	66500	3.32

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
152	01_52J_009	NRSC	-	JK_205	5576	WB	Indus	Shyok	India	63	61	56	51	3.28
153	03_77L_009	NRSC	-	CH_525	4515	WB	Brahmaputra	Ø	China	602	569	584	542	3.08
154	01_62E_006	NRSC	-	CH_81	5055	WB	Indus	Indus	China	538	516	522	506	3.07
155	02_71L_028	NRSC	38G	CH_183	5027	GL	Ganga	Sun Kosi	China	101	82	98	91	3.06
156	01_62F_010	NRSC	9I	CH_101	5250	GL	Indus	Sutlej	China	69	-	67	53	2.99
157	02_71H_003	NRSC	-	CH_123	4649	WB	Ganga	Arun Kosi	China	226	193	220	211	2.73
158	03_77K_017	NRSC	-	CH_519	4448	WB	Brahmaputra	Ø	China	3909	3807	3760	3734	2.68
159	03_62J_013	NRSC	-	CH_285	4934	WB	Brahmaputra	Ø	China	960	935	933	911	2.67

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
160	03_77L_037	NRSC	-	BH_15	5139	GL	Brahmaputra	Ø	Bhutan	615	599	599	578	2.67
161	02_72I_014	NRSC	6G	NP_67	4574	GL	Ganga	Sun Kosi	Nepal	168	149	164	163	2.44
162	02_72I_003	NRSC	319G	NP_59	4762	GL	Ganga	Sun Kosi	Nepal	43	-	42	36	2.38
163	03_62J_031	NRSC	-	CH_303	4897	GL	Brahmaputra	Ø	China	223	174	218	192	2.29
164	01_52J_005	NRSC	-	JK_201	5430	WB	Indus	Shyok	India	45	-	44	37	2.27
165	03_62K_009	NRSC	-	CH_313	5079	GL	Brahmaputra	Ø	China	319	265	312	291	2.24
166	03_62O_038	NRSC	-	CH_383	4893	WB	Brahmaputra	Ø	China	139	128	136	130	2.21
167	03_62N_009	NRSC	-	CH_326	5241	WB	Brahmaputra	Ø	China	298	289	292	280	2.05
168	01_62E_00	NRSC	-	CH_78	5104	WB	Indus	Indus	China	160	148	157	148	1.91

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	3													
169	01_52L_002	NRSC	-	JK_226	4986	WB	Indus	Indus	India	431	406	423	408	1.89
170	03_78A_018	NRSC	-	CH_598	4880	WB	Brahmaputra	Amo Chhu	China	54	53	17	30	1.89
171	02_71L_006	NRSC	3G	CH_161	5365	GL	Ganga	Arun Kosi	China	387	372	380	341	1.84
172	03_62J_012	NRSC	-	CH_284	4883	WB	Brahmaputra	Ø	China	171	164	168	159	1.79
173	03_77H_008	NRSC	-	CH_482	4570	WB	Brahmaputra	Ø	China	1272	1250	1134	1147	1.76
174	02_71H_001	NRSC	-	CH_121	4580	WB	Ganga	Arun Kosi	China	27425	26974	26951	26898	1.67
175	02_71P_028	NRSC	-	CH_216	4997	GL	Ganga	Arun Kosi	China	62	44	58	61	1.64

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
176	01_61F_003	NRSC	-	CH_60	5256	WB	Indus	Indus	China	574	565	536	512	1.59
177	03_71B_002	NRSC	-	CH_392	5388	WB	Brahmaputra	Ø	China	8381	8251	8211	8132	1.58
178	01_42H_001	NRSC	-	JK_1	4292	WB	Indus	Gilgit	India	272	264	268	254	1.49
179	03_78E_012	NRSC	-	CH_607	4576	WB	Brahmaputra	Ø	China	284	274	280	267	1.43
180	03_62N_017	NRSC	-	CH_334	5454	WB	Brahmaputra	Ø	China	81	79	80	77	1.25
181	03_62J_032	NRSC	-	CH_304	4857	GL	Brahmaputra	Ø	China	90	89	89	82	1.12
182	01_62F_003	NRSC	-	CH_94	4586	WB	Indus	Sutlej	China	41641	40806	41185	41037	1.11
183	03_77P_01	NRSC	-	CH_588	4751	WB	Brahmaput	Dangme Chhu	China	2383	2357	2097	2184	1.10

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	7						ra							
184	03_71G_001	NRSC	-	CH_410	5163	WB	Brahmaputra	Ø	China	760	741	753	732	0.93
185	03_77D_004	NRSC/SDC	Very High Risk	SK_4	5287	GL	Brahmaputra	Teesta	India	123	113	122	112	0.82
186	02_71P_015	NRSC	-	CH_203	4153	WB	Ganga	Arun Kosi	China	1067	1031	1059	950	0.76
187	03_82C_010	NRSC	-	CH_665	4921	WB	Brahmaputra	Ø	China	150	149	120	128	0.67
188	03_77L_027	NRSC	-	CH_543	4531	WB	Brahmaputra	KuriChhu	China	189	188	173	168	0.53
189	03_62J_011	NRSC	-	CH_283	5181	WB	Brahmaputra	Ø	China	382	355	380	365	0.53
190	02_72M_016	NRSC	7G	NP_92	4572	GL	Ganga	Arun Kosi	Nepal	200	139	199	163	0.50

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
191	01_61C_024	NRSC	-	CH_52	4323	WB	Indus	Indus	China	5129	4733	5107	4842	0.43
192	01_62A_003	NRSC	-	CH_69	5142	WB	Indus	Indus	China	1387	1385	1343	1304	0.14
193	01_62J_001	NRSC	-	CH_102	4784	WB	Indus	Sutlej	China	5780	5525	5774	5583	0.10

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

- Unobservable (as per NRSC) , Ø indicates small rivulet/first order stream

TABLE 3: GL&WBSHAVING WATER SPREAD GREATER THAN 50 HA THAT HAVE SHOWN NO CHANGE IN WATER SPREAD AREA

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
194	03_82O_061	NRSC	-	AP_54	3811	WB	Brahmaputra	Dibang	India	47	47	41	44	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
195	03_77L_030	NRSC	-	BH_12	5305	GL	Brahmaputra	Ø	Bhutan	89	89	73	76	0.00
196	02_71L_011	NRSC	61G	CH_166	5439	GL	Ganga	Sun Kosi	China	55	55	54	53	0.00
197	02_71L_013	NRSC	58G	CH_168	5324	GL	Ganga	Sun Kosi	China	59	57	59	56	0.00
198	02_71L_023	NRSC	39G	CH_178	5106	GL	Ganga	Arun Kosi	China	128	124	128	121	0.00
199	02_71L_026	NRSC	73G	CH_181	5057	GL	Ganga	Sun Kosi	China	67	56	67	62	0.00
200	02_72M_006	NRSC	349G	CH_252	5188	GL	Ganga	Arun Kosi	China	66	64	66	61	0.00
201	03_62O_030	NRSC	-	CH_375	5013	WB	Brahmaputra	Ø	China	111	99	111	101	0.00
202	03_71P_001	NRSC	-	CH_448	5302	WB	Brahmaputra	Ø	China	130	130	130	127	0.00
203	03_82A_007	NRSC	-	CH_626	4911	WB	Brahmaputra	Ø	China	93	87	93	88	0.00
204	03_82F_014	NRSC	-	CH_739	4691	GL	Brahmaputra	Ø	China	45	-	45	35	0.00
205	03_82J_005	NRSC	-	CH_835	4134	GL	Brahmaputra	Ø	China	74	74	58	60	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
206	03_82K_080	NRSC	-	CH_936	4530	WB	Brahmaputra	Ø	China	49	-	49	37	0.00
207	01_52H_002	NRSC/SDC	4I/Very High Risk	HP_3	4101	GL	Indus	Chenab	India	97	61	97	83	0.00
208	01_43N_027	NRSC	-	JK_154	3683	WB	Indus	Jhelum	India	44	-	44	38	0.00
209	03_78A_009	NRSC	-	SK_16	5044	GL	Brahmaputra	Teesta	India	61	61	55	52	0.00

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

- Unobservable (as per NRSC) , Ø indicates small rivulet/first order stream

TABLE 4: GL&WBSHAVING WATER SPREAD GREATER THAN 50 HATHAT HAVE SHOWN DECREASE IN WATER SPREAD AREA

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
210	03_71K_006	NRSC	-	CH_429	4847	WB	Brahmaputra	Ø	China	2167	2173	2088	2036	-0.28
211	02_71H_017	NRSC	-	CH_137	5314	GL	Ganga	Arun Kosi	China	510	512	485	475	-0.39
212	01_52N_001	NRSC	-	CH_3	4964	WB	Indus	Indus	China	12235	11883	12283	12099	-0.39
213	01_62E_004	NRSC	-	CH_79	5161	WB	Indus	Indus	China	247	227	248	238	-0.40
214	01_61C_005	NRSC	-	CH_33	4495	WB	Indus	Indus	China	382	153	384	279	-0.52
215	01_61C_015	NRSC	-	CH_43	4280	WB	Indus	Indus	China	827	777	832	770	-0.60
216	02_71L_003	NRSC	-	CH_158	5324	WB	Ganga	Arun Kosi	China	274	276	273	267	-0.72
217	01_61D_004	NRSC	-	CH_56	4991	WB	Indus	Indus	China	541	501	546	511	-0.92

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
218	01_61B_003	NRSC	-	CH_28	5074	WB	Indus	Indus	China	216	218	193	196	-0.92
219	01_52J_006	NRSC	-	JK_202	5401	WB	Indus	Shyok	India	106	107	104	100	-0.93
220	03_62N_001	NRSC	-	CH_318	5102	WB	Brahmaputra	Ø	China	14711	14352	14856	14616	-0.98
221	03_82K_077	NRSC	-	CH_933	4590	WB	Brahmaputra	Ø	China	98	-	99	94	-1.01
222	03_62J_015	NRSC	-	CH_287	5207	WB	Brahmaputra	Ø	China	84	80	85	82	-1.18
223	03_82B_015	NRSC	-	CH_641	5124	WB	Brahmaputra	Ø	China	83	84	78	76	-1.19
224	03_78A_013	NRSC	-	SK_19	5470	GL	Brahmaputra	Teesta	India	80	74	81	77	-1.23
225	01_43J_017	NRSC	3I	JK_95	3580	WB	Indus	Jhelum	India	158	160	159	153	-1.25

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
226	01_61C_023	NRSC	-	CH_51	4350	WB	Indus	Indus	China	663	672	622	599	-1.34
227	03_78M_003	NRSC	-	CH_614	4459	WB	Brahmaputra	Dangme Chhu	China	212	215	168	186	-1.40
228	02_62K_010	NRSC	-	NP_28	2975	WB	Ganga	Karnal	Nepal	1039	1054	1048	1026	-1.42
229	03_78I_018	NRSC	-	BH_99	5083	GL	Brahmaputra	Puna Tsang Chhu	Bhutan	68	69	68	65	-1.45
230	03_82E_007	NRSC	-	CH_725	5043	WB	Brahmaputra	Ø	China	67	68	68	65	-1.47
231	03_78E_019	NRSC	-	CH_611	5022	GL	Brahmaputra	Ø	China	61	60	62	58	-1.61
232	03_77B_001	NRSC	-	CH_452	5039	WB	Brahmaputra	Ø	China	56	57	43	44	-1.75
233	03_82F_030	NRSC	-	CH_755	3485	WB	Brahmaputr	Ø	China	2684	2735	2694	2665	-1.86

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
							a							
234	01_61H_001	NRSC	-	CH_66	4619	WB	Indus	Indus	China	311	317	315	287	-1.89
235	03_71C_003	NRSC	-	CH_396	5412	GL	Brahmaputra	Ø	China	51	-	52	45	-1.92
236	01_52J_001	NRSC	8I	JK_197	5311	GL	Indus	Shyok	India	102	104	96	92	-1.92
237	02_71P_016	NRSC	-	CH_204	4182	WB	Ganga	Arun Kosi	China	148	151	139	124	-1.99
238	03_62N_021	NRSC	-	CH_338	5432	WB	Brahmaputra	Ø	China	196	200	185	183	-2.00
239	03_82A_004	NRSC	-	CH_623	5008	WB	Brahmaputra	Ø	China	48	-	49	42	-2.04
240	03_82E_003	NRSC	-	CH_721	5027	WB	Brahmaputra	Ø	China	96	98	95	94	-2.04
241	03_62N_02	NRSC	-	CH_339	4599	WB	Brahmaputr	Ø	China	190	193	194	187	-2.06

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	2						a							
242	03_77D_003	NRSC	-	SK_3	5098	WB	Brahmaputra	Teesta	India	95	97	93	91	-2.06
243	03_71O_009	NRSC	-	CH_445	4302	WB	Brahmaputra	Ø	China	2159	2111	2210	2129	-2.31
244	02_62K_012	NRSC	-	NP_30	3653	WB	Ganga	Bheri	Nepal	482	481	494	471	-2.43
245	02_71H_007	NRSC	-	CH_127	5149	GL	Ganga	Arun Kosi	China	119	122	120	117	-2.46
246	03_82F_007	NRSC	-	CH_732	4801	GL	Brahmaputra	Ø	China	117	120	119	113	-2.50
247	02_78A_005	NRSC	-	CH_271	5376	GL	Ganga	Arun Kosi	China	113	91	110	116	-2.59
248	03_82F_004	NRSC	-	CH_729	4508	WB	Brahmaputra	Ø	China	692	713	701	690	-2.95

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
249	01_52J_002	NRSC	-	JK_198	5359	WB	Indus	Shyok	India	65	67	61	59	-2.99
250	03_71K_002	NRSC	-	CH_425	4974	WB	Brahmaputra	Ø	China	2298	2369	2288	2280	-3.00
251	01_52L_001	NRSC	-	JK_225	4523	WB	Indus	Sutlej	India	13915	14351	14180	14105	-3.04
252	03_77P_019	NRSC	-	CH_590	4637	WB	Brahmaputra	Dangme Chhu	China	255	237	263	240	-3.04
253	03_82J_004	NRSC	-	CH_834	3957	GL	Brahmaputra	Ø	China	510	378	526	474	-3.04
254	02_62P_004	NRSC	-	NP_37	807	WB	Ganga	Trisuli	Nepal	382	385	394	389	-3.05
255	01_43N_001	NRSC	-	JK_128	4142	WB	Indus	Shingo (Indus)	India	127	131	124	122	-3.05
256	01_43K_010	NRSC	-	JK_111	3946	WB	Indus	Jhelum	India	63	65	60	60	-3.08

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
257	01_62F_001	NRSC	-	CH_92	4571	WB	Indus	Sutlej	China	24888	25680	25164	25241	-3.08
258	03_77N_004	NRSC	-	CH_563	3890	WB	Brahmaputra	Ø	China	1217	1257	1238	1231	-3.18
259	01_61C_001	NRSC	-	CH_29	4526	WB	Indus	Indus	China	11192	11304	11562	11424	-3.20
260	03_77H_030	NRSC	-	CH_495	4802	WB	Brahmaputra	Ø	China	60	62	58	56	-3.23
261	03_82B_005	NRSC	-	CH_631	4888	WB	Brahmaputra	Ø	China	208	215	211	203	-3.26
262	03_82K_075	NRSC	-	CH_931	4511	WB	Brahmaputra	Ø	China	116	-	120	102	-3.33
263	02_71D_007	NRSC	-	NP_48	700	WB	Ganga	Trisuli	Nepal	284	294	281	280	-3.40
264	03_77L_067	NRSC	-	BH_35	5231	GL	Brahmaputr	Manas	Bhutan	84	87	68	71	-3.45

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
							a	Chhu&MangdeChhu						
265	03_82J_017	NRSC	-	CH_847	3829	WB	Brahmaputra	Ø	China	277	287	284	279	-3.48
266	03_78E_023	NRSC	-	CH_612	5291	GL	Brahmaputra	Ø	China	54	-	48	56	-3.57
267	03_77D_002	NRSC	-	SK_2	5156	GL	Brahmaputra	Teesta	India	108	112	101	96	-3.57
268	03_77L_077	NRSC	-	BH_45	5136	WB	Brahmaputra	Puna Tsang Chhu	Bhutan	53	55	10	29	-3.64
269	03_82B_008	NRSC	-	CH_634	4928	WB	Brahmaputra	Ø	China	252	262	262	254	-3.82
270	03_82B_021	NRSC	-	CH_647	5041	WB	Brahmaputra	Ø	China	50	52	44	39	-3.85
271	01_43A_00	NRSC	-	JK_22	3641	WB	Indus	Gilgit	India	200	196	208	194	-3.85

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	1													
272	03_77L_001	NRSC	-	CH_520	4443	WB	Brahmaputra	Ø	China	54260	56442	54547	54439	-3.87
273	02_71H_012	NRSC	-	CH_132	5379	GL	Ganga	Arun Kosi	China	124	-	129	120	-3.88
274	03_82B_004	NRSC	-	CH_630	4893	WB	Brahmaputra	Ø	China	99	98	103	98	-3.88
275	03_82B_009	NRSC	-	CH_635	4963	WB	Brahmaputra	Ø	China	169	176	174	166	-3.98
276	02_71H_027	NRSC	2G	CH_147	5242	GL	Ganga	Sun Kosi	China	460	480	441	437	-4.17
277	03_82D_004	NRSC	-	CH_710	4481	WB	Brahmaputra	Ø	China	366	375	382	372	-4.19
278	01_52O_005	NRSC	-	CH_8	4358	WB	Indus	Indus	China	794	829	792	757	-4.22

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
279	01_61C_016	NRSC	-	CH_44	4289	WB	Indus	Indus	China	361	377	364	360	-4.24
280	02_71H_035	NRSC	-	CH_155	4366	WB	Ganga	Sun Kosi	China	45	-	47	41	-4.26
281	03_82B_020	NRSC	-	CH_646	4986	WB	Brahmaputra	Ø	China	45	-	47	41	-4.26
282	03_77H_011	NRSC	-	BH_4	4963	GL	Brahmaputra	Ø	Bhutan	154	161	158	142	-4.35
283	02_71L_034	NRSC	89G	CH_188	5095	GL	Ganga	Sun Kosi	China	66	-	69	55	-4.35
284	03_78E_017	NRSC	-	CH_609	5253	GL	Brahmaputra	Ø	China	44	-	38	46	-4.35
285	03_77D_008	NRSC	-	SK_8	5039	GL	Brahmaputra	Teesta	India	44	-	46	35	-4.35
286	03_77J_003	NRSC	-	CH_499	5039	WB	Brahmaputra	Ø	China	87	91	85	84	-4.40

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
287	03_82E_002	NRSC	-	CH_720	5008	WB	Brahmaputra	Ø	China	670	675	701	613	-4.42
288	03_91C_045	NRSC	-	AP_91	3493	WB	Brahmaputra	Dibang	India	106	111	86	96	-4.50
289	03_78E_028	NRSC	-	BH_72	2161	WB	Brahmaputra	Puna Tsang Chhu	Bhutan	42	-	44	35	-4.55
290	03_62K_001	NRSC	-	CH_305	4834	WB	Brahmaputra	Ø	China	378	396	395	376	-4.55
291	03_77P_005	NRSC	-	CH_576	4619	WB	Brahmaputra	Ø	China	105	110	95	97	-4.55
292	03_82F_008	NRSC	-	CH_733	4828	WB	Brahmaputra	Ø	China	84	84	88	83	-4.55
293	01_43N_020	NRSC	-	JK_147	4112	WB	Indus	Jhelum	India	62	65	61	58	-4.62
294	03_91C_04	NRSC	-	AP_90	4230	WB	Brahmaputr	Lohit	India	61	64	52	52	-4.69

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	4						a							
295	03_82K_036	NRSC	-	CH_892	4251	WB	Brahmaputra	Ø	China	61	64	38	36	-4.69
296	02_71L_002	NRSC	-	CH_157	5261	WB	Ganga	Arun Kosi	China	77	71	81	79	-4.94
297	01_52O_003	NRSC	-	CH_6	4252	WB	Indus	Indus	China	209	220	196	181	-5.00
298	02_77D_007	NRSC	244G	CH_262	5215	GL	Ganga	Arun Kosi	China	56	58	59	56	-5.08
299	03_82G_017	NRSC	-	CH_778	4437	WB	Brahmaputra	Ø	China	56	59	51	50	-5.08
300	03_82B_002	NRSC	-	CH_628	4906	WB	Brahmaputra	Ø	China	426	449	436	422	-5.12
301	03_77H_020	NRSC	-	CH_490	4473	WB	Brahmaputra	Ø	China	4719	4976	4525	4594	-5.16
302	01_52K_00	NRSC	-	JK_212	4293	WB	Indus	Shyok	India	5515	5797	5817	5737	-5.19

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	4													
303	03_77L_017	NRSC	-	CH_533	5340	WB	Brahmaputra	Ø	China	72	76	75	71	-5.26
304	03_62J_001	NRSC	-	CH_273	5449	WB	Brahmaputra	Ø	China	143	151	143	140	-5.30
305	03_82F_020	NRSC	-	CH_745	4110	GL	Brahmaputra	Ø	China	70	71	74	68	-5.41
306	01_62E_010	NRSC	-	CH_85	5233	WB	Indus	Indus	China	155	164	155	146	-5.49
307	03_62J_016	NRSC	-	CH_288	5303	GL	Brahmaputra	Ø	China	51	-	54	44	-5.56
308	03_82G_035	NRSC	-	CH_796	4386	WB	Brahmaputra	Ø	China	83	80	88	74	-5.68
309	03_62N_004	NRSC	-	CH_321	5168	WB	Brahmaputra	Ø	China	872	899	925	900	-5.73

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
310	01_61F_004	NRSC	-	CH_61	4814	WB	Indus	Indus	China	36826	37181	39073	38352	-5.75
311	01_52K_016	NRSC	-	JK_224	4675	WB	Indus	Sutlej	India	523	555	523	514	-5.77
312	03_62K_002	NRSC	-	CH_306	4858	WB	Brahmaputra	Ø	China	48	-	51	44	-5.88
313	03_82K_020	NRSC	-	CH_876	4364	WB	Brahmaputra	Ø	China	80	85	48	54	-5.88
314	01_61D_002	NRSC	-	CH_54	4313	WB	Indus	Indus	China	1556	1654	1562	1461	-5.93
315	03_62O_024	NRSC	-	CH_369	4637	WB	Brahmaputra	Ø	China	841	740	894	814	-5.93
316	02_53K_001	NRSC	-	UK_1	355	WB	Ganga	Ramganga	India	5215	5557	5371	5332	-6.15
317	03_91C_02	NRSC	-	CH_107	4229	WB	Brahmaputr	Ø	China	207	221	218	211	-6.33

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	9			8			a							
318	01_52K_009	NRSC	-	JK_217	4921	WB	Indus	Shyok	India	192	205	196	191	-6.34
319	01_61F_002	NRSC	-	CH_59	5279	WB	Indus	Indus	China	59	63	54	50	-6.35
320	03_82B_006	NRSC	-	CH_632	4837	WB	Brahmaputra	Ø	China	117	121	125	120	-6.40
321	03_82G_048	NRSC	-	CH_809	4663	WB	Brahmaputra	Ø	China	43	38	46	43	-6.52
322	01_43N_032	NRSC	-	JK_159	3595	WB	Indus	Jhelum	India	57	-	61	50	-6.56
323	03_82G_023	NRSC	-	CH_784	4377	WB	Brahmaputra	Ø	China	71	76	70	65	-6.58
324	01_43N_022	NRSC	-	JK_149	4243	WB	Indus	Jhelum	India	69	74	72	68	-6.76
325	03_77P_01	NRSC	-	CH_583	4975	WB	Brahmaputr	Ø	China	68	73	61	56	-6.85

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	2						a							
326	01_61C_021	NRSC	-	CH_49	4349	WB	Indus	Indus	China	1110	1147	1195	1071	-7.11
327	02_71P_027	NRSC	82G	CH_215	5389	GL	Ganga	Arun Kosi	China	51	-	55	40	-7.27
328	03_82K_068	NRSC	-	CH_924	4320	WB	Brahmaputra	Ø	China	51	55	54	50	-7.27
329	03_78M_016	NRSC	-	CH_617	4647	WB	Brahmaputra	Dangme Chhu	China	140	151	117	128	-7.28
330	03_71G_011	NRSC	-	CH_420	4619	WB	Brahmaputra	Ø	China	1352	1236	1461	1318	-7.46
331	03_82G_050	NRSC	-	CH_811	4734	WB	Brahmaputra	Ø	China	37	-	40	34	-7.50
332	03_77L_003	NRSC	-	CH_521	4434	WB	Brahmaputra	Ø	China	3804	4113	4016	4022	-7.51

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
333	03_78E_006	NRSC	-	CH_604	4572	WB	Brahmaputra	Ø	China	60	65	59	56	-7.69
334	03_82B_007	NRSC	-	CH_633	4964	WB	Brahmaputra	Ø	China	191	206	207	196	-7.73
335	02_72I_004	NRSC	9G	CH_244	5074	GL	Ganga	Sun Kosi	China	185	125	201	174	-7.96
336	01_62E_015	NRSC	-	CH_90	5415	WB	Indus	Sutlej	China	46	50	49	46	-8.00
337	02_71H_015	NRSC	-	CH_135	5367	GL	Ganga	Arun Kosi	China	496	540	537	524	-8.15
338	02_71H_021	NRSC	76G	CH_141	4463	GL	Ganga	Trisuli	China	44	-	48	40	-8.33
339	01_52C_003	NRSC	7I	JK_187	4512	GL	Indus	Indus	India	55	-	60	49	-8.33
340	01_43P_002	NRSC	-	JK_167	669	WB	Indus	Ravi	India	54	58	59	55	-8.47

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
341	03_92A_006	NRSC	-	AP_204	1178	WB	Brahmaputra	Lohit	India	75	82	80	78	-8.54
342	01_52K_011	NRSC	-	JK_219	5291	WB	Indus	Shyok	India	167	183	175	170	-8.74
343	03_78E_007	NRSC	-	BH_60	5008	GL	Brahmaputra	Puna Tsang Chhu	Bhutan	61	67	47	52	-8.96
344	01_52G_001	NRSC	-	JK_189	5008	WB	Indus	Shyok	India	40	-	44	38	-9.09
345	01_42H_003	NRSC	-	JK_3	3854	WB	Indus	Gilgit	India	108	119	109	101	-9.24
346	01_43E_006	NRSC	-	JK_30	4186	WB	Indus	Gilgit	India	68	75	66	66	-9.33
347	01_61C_012	NRSC	-	CH_40	4282	WB	Indus	Indus	China	299	317	330	308	-9.39
348	03_78I_056	NRSC	-	BH_137	4794	WB	Brahmaputr	Manas	Bhutan	76	84	46	57	-9.52

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
							a	Chhu&MangdeChhu						
349	03_82J_020	NRSC	-	CH_850	3852	WB	Brahmaputra	Ø	China	397	439	348	383	-9.57
350	03_78I_048	NRSC	-	BH_129	4169	WB	Brahmaputra	Manas Chhu&MangdeChhu	Bhutan	47	52	32	38	-9.62
351	03_82K_018	NRSC	-	CH_874	4168	WB	Brahmaputra	Ø	China	158	175	65	92	-9.71
352	03_91C_025	NRSC	-	CH_1076	4022	GL	Brahmaputra	Ø	China	102	107	113	107	-9.73
353	01_43J_007	NRSC	6I	JK_85	3708	WB	Indus	Jhelum	India	92	92	102	92	-9.80
354	03_83A_012	NRSC	-	AP_77	4287	WB	Brahmaputra	Dangme Chhu	India	54	60	39	46	-10.00
355	03_91C_04	NRSC	-	AP_92	3353	WB	Brahmaputr	Dibang	India	54	60	43	46	-10.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	6						a							
356	03_77P_020	NRSC	-	CH_591	4649	WB	Brahmaputra	KuriChhu	China	52	58	45	50	-10.34
357	01_43G_001	NRSC	-	JK_67	346	WB	Indus	Jhelum	India	20547	22572	22977	22344	-10.58
358	01_62E_013	NRSC	-	CH_88	5345	WB	Indus	Indus	China	151	169	167	159	-10.65
359	03_82G_009	NRSC	-	CH_770	4580	WB	Brahmaputra	Ø	China	41	-	46	46	-10.87
360	02_62B_001	NRSC	-	CH_106	5216	WB	Ganga	Karnal	China	40	42	45	40	-11.11
361	03_77H_012	NRSC	-	CH_483	4723	GL	Brahmaputra	Ø	China	72	81	80	76	-11.11
362	02_72E_001	NRSC	-	NP_57	1554	WB	Ganga	Baghmati	Nepal	149	165	168	153	-11.31

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
363	02_77D_006	NRSC	-	CH_261	4894	GL	Ganga	Arun Kosi	China	86	89	92	97	-11.34
364	03_91C_034	NRSC	-	AP_84	4288	WB	Brahmaputra	Dibang	India	139	157	59	80	-11.46
365	03_77H_013	NRSC	-	CH_484	4950	GL	Brahmaputra	Ø	China	46	-	52	43	-11.54
366	03_82B_014	NRSC	-	CH_640	4825	WB	Brahmaputra	Ø	China	137	155	152	127	-11.61
367	03_82O_042	NRSC	-	AP_49	3093	WB	Brahmaputra	Dibang	India	38	-	43	36	-11.63
368	03_77L_051	NRSC	-	BH_22	4548	GL	Brahmaputra	Puna Tsang Chhu	Bhutan	143	142	162	150	-11.73
369	03_82E_004	NRSC	-	CH_722	5049	WB	Brahmaputra	Ø	China	42	48	48	46	-12.50
370	02_53O_00	NRSC	-	UK_4	1968	WB	Ganga	Ramganga	India	35	-	40	33	-12.50

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	1													
371	01_43J_020	NRSC	-	JK_98	1584	WB	Indus	Jhelum	India	161	185	168	164	-12.97
372	03_82A_003	NRSC	-	CH_622	4896	WB	Brahmaputra	Ø	China	87	100	92	91	-13.00
373	03_91D_022	NRSC	-	AP_118	3143	WB	Brahmaputra	Dibang	India	31	-	36	30	-13.89
374	03_77P_021	NRSC	-	CH_592	4749	GL	Brahmaputra	Dangme Chhu	China	55	64	45	47	-14.06
375	03_71O_010	NRSC	-	CH_446	4296	WB	Brahmaputra	Ø	China	873	850	1017	920	-14.16
376	03_77L_011	NRSC	-	CH_527	4533	WB	Brahmaputra	Ø	China	1099	1282	1200	1150	-14.27
377	03_91H_029	NRSC	-	CH_1194	3325	WB	Brahmaputra	Lohit	China	42	-	49	37	-14.29
378	03_71O_00	NRSC	-	CH_438	4909	WB	Brahmaputr	Ø	China	42	-	49	44	-14.29

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	2						a							
379	02_71D_008	NRSC	-	NP_49	639	WB	Ganga	Trisuli	Nepal	89	104	102	98	-14.42
380	03_77K_009	NRSC	-	CH_511	3937	WB	Brahmaputra	Ø	China	59	67	69	67	-14.49
381	03_77L_068	NRSC	-	BH_36	4764	WB	Brahmaputra	KuriChhu	Bhutan	70	82	69	73	-14.63
382	03_82K_009	NRSC	-	CH_865	4168	WB	Brahmaputra	Ø	China	93	109	60	82	-14.68
383	03_71K_009	NRSC	-	CH_432	4750	WB	Brahmaputra	Ø	China	220	258	218	193	-14.73
384	03_82C_016	NRSC	-	CH_671	4679	WB	Brahmaputra	Ø	China	46	54	50	52	-14.81
385	03_77L_007	NRSC	-	CH_523	4510	WB	Brahmaputra	Ø	China	1347	1582	1380	1402	-14.85

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
386	03_77B_002	NRSC	-	CH_453	5019	WB	Brahmaputra	Ø	China	211	248	210	206	-14.92
387	03_62O_039	NRSC	-	CH_384	4555	WB	Brahmaputra	Ø	China	260	306	294	286	-15.03
388	03_82K_039	NRSC	-	CH_895	4128	WB	Brahmaputra	Ø	China	179	211	131	167	-15.17
389	03_77P_004	NRSC	-	CH_575	4452	WB	Brahmaputra	Ø	China	183	205	216	205	-15.28
390	01_53A_001	NRSC	-	HP_9	409	WB	Indus	Beas	India	18670	22072	18290	17771	-15.41
391	03_82G_019	NRSC	-	CH_780	4460	WB	Brahmaputra	Ø	China	49	58	40	47	-15.52
392	03_82G_062	NRSC	-	CH_823	4925	WB	Brahmaputra	Ø	China	49	-	58	54	-15.52
393	01_62F_004	NRSC	-	CH_95	5493	WB	Indus	Sutlej	China	161	186	191	181	-15.71

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
394	03_82B_010	NRSC	-	CH_636	4990	WB	Brahmaputra	Ø	China	42	50	47	41	-16.00
395	03_77L_006	NRSC	-	CH_522	4533	WB	Brahmaputra	Ø	China	25	-	30	30	-16.67
396	03_77L_032	NRSC	-	CH_547	4669	GL	Brahmaputra	KuriChhu	China	92	111	80	82	-17.12
397	03_78A_001	NRSC/SDC	High Risk	SK_9	5371	GL	Brahmaputra	Teesta	India	184	162	149	222	-17.12
398	03_71C_005	NRSC	-	CH_398	5551	GL	Brahmaputra	Ø	China	48	58	56	54	-17.24
399	03_82G_045	NRSC	-	CH_806	4523	WB	Brahmaputra	Ø	China	61	73	74	69	-17.57
400	03_82G_024	NRSC	-	CH_785	4647	WB	Brahmaputra	Ø	China	89	108	78	76	-17.59
401	01_52I_003	NRSC	-	JK_195	5159	WB	Indus	Shyok	India	173	186	211	169	-18.01

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
402	03_82A_002	NRSC	-	CH_621	4905	WB	Brahmaputra	Ø	China	312	351	382	355	-18.32
403	03_77P_006	NRSC	-	CH_577	4616	WB	Brahmaputra	Ø	China	4733	5796	5293	4301	-18.34
404	01_52G_003	NRSC	-	JK_191	4533	WB	Indus	Indus	India	1313	1609	1315	1335	-18.40
405	01_62F_002	NRSC	-	CH_93	4592	WB	Indus	Sutlej	China	272	334	320	316	-18.56
406	03_77P_013	NRSC	-	CH_584	5155	WB	Brahmaputra	Ø	China	52	64	52	48	-18.75
407	03_77H_018	NRSC	-	CH_488	4699	WB	Brahmaputra	Ø	China	67	75	83	77	-19.28
408	03_71G_008	NRSC	-	CH_417	5187	WB	Brahmaputra	Ø	China	50	62	60	59	-19.35
409	02_71P_035	NRSC	-	CH_223	5146	WB	Ganga	Arun Kosi	China	87	108	98	98	-19.44

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
410	01_52D_001	NRSC	-	HP_1	780	WB	Indus	Ravi	India	674	819	838	768	-19.57
411	03_82J_018	NRSC	-	CH_848	3913	GL	Brahmaputra	Ø	China	77	94	97	92	-20.62
412	01_43E_023	NRSC	-	JK_47	4155	WB	Indus	Gilgit	India	76	96	83	80	-20.83
413	03_77L_035	NRSC	-	BH_14	5486	GL	Brahmaputra	Ø	Bhutan	56	71	49	52	-21.13
414	03_71K_011	NRSC	-	CH_434	4761	WB	Brahmaputra	Ø	China	321	409	399	371	-21.52
415	03_82O_054	NRSC	-	CH_1046	3311	WB	Brahmaputra	Dibang	China	40	51	19	33	-21.57
416	03_91C_024	NRSC	-	CH_1075	3977	GL	Brahmaputra	Ø	China	233	287	298	280	-21.81
417	01_61D_00	NRSC	-	CH_55	4453	WB	Indus	Indus	China	50	64	62	50	-21.88

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	3													
418	03_77L_029	NRSC	-	CH_545	5451	GL	Brahmaputra	KuriChhu	China	42	-	54	43	-22.22
419	01_43M_003	NRSC	-	JK_120	2663	WB	Indus	Shigar (Indus)	India	172	198	224	220	-23.21
420	01_43A_002	NRSC	-	JK_23	3790	WB	Indus	Gilgit	India	79	96	104	95	-24.04
421	01_52L_003	NRSC	-	JK_227	4985	WB	Indus	Indus	India	510	680	573	594	-25.00
422	01_42H_005	NRSC	-	JK_5	2237	WB	Indus	Gilgit	India	54	72	60	54	-25.00
423	02_71P_025	NRSC	-	CH_213	4807	WB	Ganga	Arun Kosi	China	95	110	127	107	-25.20
424	03_91H_067	NRSC	-	AP_185	3791	WB	Brahmaputra	Lohit	India	35	-	44	47	-25.53
425	03_77C_00	NRSC	-	CH_460	4514	WB	Brahmaputr	Ø	China	75	101	93	91	-25.74

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	6						a							
426	03_77P_018	NRSC	-	CH_589	4707	WB	Brahmaputra	Dangme Chhu	China	113	153	129	131	-26.14
427	01_43J_022	NRSC	-	JK_100	1583	WB	Indus	Jhelum	India	47	62	64	59	-26.56
428	02_71P_018	NRSC	-	CH_206	4199	WB	Ganga	Arun Kosi	China	60	54	82	64	-26.83
429	03_91D_081	NRSC	-	CH_1136	3356	WB	Brahmaputra	Lohit	China	318	436	312	247	-27.06
430	03_82K_006	NRSC	-	CH_862	4523	WB	Brahmaputra	Ø	China	35	48	40	44	-27.08
431	03_77P_016	NRSC	-	CH_587	4749	WB	Brahmaputra	Dangme Chhu	China	191	262	224	227	-27.10
432	03_77H_004	NRSC	-	CH_479	4428	WB	Brahmaputra	Ø	China	149	205	149	150	-27.32
433	03_82J_014	NRSC	-	CH_844	3703	WB	Brahmaputr	Ø	China	133	183	158	147	-27.32

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
							a							
434	01_43J_021	NRSC	-	JK_99	1582	WB	Indus	Jhelum	India	938	1305	992	1028	-28.12
435	03_91C_033	NRSC	-	CH_1079	4278	GL	Brahmaputra	Ø	China	136	190	177	161	-28.42
436	01_52O_002	NRSC	-	CH_5	5262	WB	Indus	Indus	China	81	115	112	102	-29.57
437	02_53O_005	NRSC	-	UK_8	239	WB	Ganga	Ramganga	India	903	1284	1263	1160	-29.67
438	02_72I_007	NRSC	785G	NP_62	4540	GL	Ganga	Sun Kosi	Nepal	49	-	70	67	-30.00
439	03_71G_009	NRSC	-	CH_418	5032	WB	Brahmaputra	Ø	China	109	155	156	148	-30.13
440	03_71G_010	NRSC	-	CH_419	4491	WB	Brahmaputra	Ø	China	216	310	262	259	-30.32
441	01_62E_002	NRSC	-	CH_77	5139	WB	Indus	Indus	China	117	173	157	149	-32.37

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
442	02_53P_003	NRSC	-	UK_11	207	WB	Ganga	Ramganga	India	760	1138	842	844	-33.22
443	03_78E_002	NRSC	-	BH_57	5110	GL	Brahmaputra	Puna Tsang Chhu	Bhutan	39	59	35	40	-33.90
444	03_82K_060	NRSC	-	CH_916	4316	WB	Brahmaputra	Ø	China	64	99	71	68	-35.35
445	02_72I_002	NRSC	645G	NP_58	4854	GL	Ganga	Sun Kosi	Nepal	42	65	60	59	-35.38
446	03_62O_043	NRSC	-	CH_388	5285	WB	Brahmaputra	Ø	China	53	83	80	73	-36.14
447	01_53E_001	NRSC	-	HP_12	921	WB	Indus	Beas	India	69	70	109	95	-36.70
448	03_77H_001	NRSC	-	CH_476	4275	WB	Brahmaputra	Ø	China	326	521	353	361	-37.43
449	03_77L_008	NRSC	-	CH_524	4448	WB	Brahmaputra	Ø	China	49	76	80	79	-38.75

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
450	01_61C_018	NRSC	-	CH_46	4291	WB	Indus	Indus	China	1231	1958	2037	1901	-39.57
451	02_77D_001	NRSC	-	CH_256	4423	WB	Ganga	Arun Kosi	China	2846	4849	3677	3583	-41.31
452	01_62B_001	NRSC	-	CH_73	4526	WB	Indus	Sutlej	China	259	472	301	316	-45.13
453	02_53K_002	NRSC	-	UK_2	260	WB	Ganga	Ramganga	India	750	1481	1000	918	-49.36
454	03_91H_025	NRSC	-	CH_1190	3741	WB	Brahmaputra	Lohit	China	46	85	91	61	-49.45
455	03_77O_001	NRSC	-	CH_564	3879	WB	Brahmaputra	Ø	China	74	153	160	159	-53.75
456	01_61C_008	NRSC	-		4494	WB		Ø		178				-54.94
457	03_78A_00	NRSC/SD	Very High	SK_11	4977	GL	Brahmaputr	Teesta	India	32	-	74	57	-56.76

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	3	C	Risk				a							
458	01_61D_001	NRSC	-	CH_53	5593	WB	Indus	Indus	China	35	81	76	66	-56.79
459	03_77H_007	NRSC	-	CH_481	4424	WB	Brahmaputra	Ø	China	323	823	737	670	-60.75
460	03_82D_010	NRSC	-	CH_716	5043	WB	Brahmaputra	Dangme Chhu	China	25	70	49	57	-64.29
461	03_62N_003	NRSC	-	CH_320	5208	WB	Brahmaputra	Ø	China	8	-	46	44	-82.61
462	02_77D_004	NRSC	-	CH_259	4378	WB	Ganga	Arun Kosi	China	160	1013	802	740	-84.21
463	03_77O_002	NRSC	-	CH_565	3806	WB	Brahmaputra	Ø	China	4	82	80	79	-95.12
464	01_52L_008	NRSC	-	CH_1	3873	WB	Indus	Sutlej	China	4	32	101	78	-96.04
465	02_77D_00	NRSC	-	CH_258	4364	WB	Ganga	Arun Kosi	China	-	102	82	133	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
	3													
466	03_62O_027	NRSC	-	CH_372	4575	WB	Brahmaputra	Ø	China	-	-	39	35	-
467	03_62O_028	NRSC	-	CH_373	4577	WB	Brahmaputra	Ø	China	-	902	644	635	-
468	03_71C_010	NRSC	-	CH_403	4561	WB	Brahmaputra	Ø	China	-	-	54	42	-
469	03_71K_007	NRSC	-	CH_430	4752	WB	Brahmaputra	Ø	China	-	96	82	80	-
470	01_61G_001	NRSC	-	CH_62	4973	WB	Indus	Indus	China	-	81	71	71	-
471	01_61G_003	NRSC	-	CH_64	4864	WB	Indus	Indus	China	-	80	58	64	-
472	01_53A_002	NRSC	-	HP_10	495	WB	Indus	Sutlej	India	-	12198	11339	11603	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August -2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
473	01_52E_001	NRSC	-	JK_188	5116	GL	Indus	Shyok	India	-	48	4	19	-
474	01_52I_004	NRSC	-	JK_196	5141	WB	Indus	Shyok	India	-	-	63	62	-
475	02_63M_002	NRSC	-	NP_41	112	WB	Ganga	Rapti	Nepal	-	148	107	119	-

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

- Unobservable (as per NRSC) , Ø indicates small rivulet/first order stream

TABLE 5: GL&WBSHAVING WATER SPREAD GREATER THAN 50 HA WITH NO ANALYSIS OF CHANGE IN WATER SPREAD AREA

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	UID	Elevation (m)	Lake Type	Basin	River	Country	Area of August-2022 (ha)	Area of Base Year of 2011 (ha)	Area of Last 5 Years (ha)	Area of Last 10 years (ha)	Max Change in Area of August (%)
476	03_82F_010	NRSC	-	CH_735	5030	GL	Brahmaputra	Ø	China	17	-	-	-	#
477	01_61C_004	NRSC			4495	WB	Indus	Ø		#	-	-	-	#

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

-Unobservable (as per NRSC) , Ø indicates small rivulet/first order stream

#indicates frozen/ dried lakes

TABLE 6: WATER SPREAD AREA OF GLS PREPARED BY NDMA THROUGH SWISS DEVELOPMENT AGENCY (SDC) FOR INDIAN HIMALAYAN REGION

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Latitude	Longitude	Lake Type	Elevation (m)	State/UT	Country	Area of June-2022 (Base Month)(ha)	Area of Aug-2022 (ha)	Change in Area of Aug wrt Base month(%)
478	1805	SDC	81I/Very High Risk	32.762	77.195	GL	4775	HP	India	1	3	200.00
479	298	SDC	Very High Risk	27.873	88.638	GL	4508	SK	India	4	6	50.00
480	1847	SDC	Very High Risk	31.915	77.527	GL	4570	HP	India	11	13	18.18
481	2108	SDC	347G/Very High Risk	30.976	79.459	GL	5587	UK	India	17	20	17.65
482	951	SDC	Very High Risk	34.067	75.475	GL	3762	JK	India	17	20	17.65
483	312	SDC	Medium Risk	27.701	88.514	GL	5137	SK	India	8	9	12.50
484	2207	SDC	Very High Risk	30.912	78.958	GL	4707	UK	India	10	11	10.00
485	963	SDC	Medium Risk	34.139	75.376	GL	3725	JK	India	26	28	7.69
486	345	SDC	Medium Risk	27.864	88.747	GL	5108	SK	India	18	19	5.56

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Latitude	Longitude	Lake Type	Elevation (m)	State/UT	Country	Area of June-2022 (Base Month)(ha)	Area of Aug-2022 (ha)	Change in Area of Aug wrt Base month(%)
487	260	SDC	Medium Risk	27.894	88.761	GL	5253	SK	India	39	41	5.13
488	227	SDC	Very High Risk	27.993	88.547	GL	5176	SK	India	56	56	0.00
489	569	SDC	Medium Risk	28.002	88.64	GL	5450	SK	India	30	30	0.00
490	515	SDC	Medium Risk	27.854	88.806	GL	5063	SK	India	8	8	0.00
491	1032	SDC	Very High Risk	34.386	75.064	GL	4007	JK	India	1	1	0.00
492	1360	SDC	Very High Risk	35.027	75.725	GL	4667	JK	India	9	9	0.00
493	1774	SDC	Very High Risk	32.221	76.788	GL	4593	HP	India	7	7	0.00
494	293	SDC	Very High Risk	27.951	88.705	GL	5048	SK	India	2	2	0.00
495	295	SDC	Very High Risk	27.92	88.672	GL	4850	SK	India	6	6	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Latitude	Longitude	Lake Type	Elevation (m)	State/UT	Country	Area of June-2022 (Base Month)(ha)	Area of Aug-2022 (ha)	Change in Area of Aug wrt Base month(%)
496	129	SDC	Very High Risk	27.775	92.314	GL	4895	AP	India	9	9	0.00
497	237	SDC	Very Low Risk	27.993	88.801	GL	5322	SK	India	7	7	0.00
498	1037	SDC	27I/Medium Risk	34.422	75.058	GL	3603	JK	India	40	37	-7.50
499	256	SDC	High Risk	27.816	88.657	GL	4615	SK	India	17	15	-11.76
500	931	SDC	Very High Risk	33.929	75.389	GL	4082	JK	India	20	16	-20.00
501	27	SDC	Very High Risk	34.381	74.876	GL	3775	JK	India	14	11	-21.43
502	292	SDC	Medium Risk	28.006	88.655	GL	5577	SK	India	4	3	-25.00
503	938	SDC	Very High Risk	33.953	75.378	GL	3683	JK	India	23	17	-26.09
504	180	SDC	Very High Risk	34.353	76.077	GL	4442	JK	India	11	7	-36.36
505	1014	SDC	Very High	34.299	75.06	GL	3989	JK	India	5	3	-40.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Latitude	Longitude	Lake Type	Elevation (m)	State/UT	Country	Area of June-2022 (Base Month)(ha)	Area of Aug-2022 (ha)	Change in Area of Aug wrt Base month(%)
			Risk									
506	2031	SDC	Very High Risk	31.339	78.253	GL	4702	HP	India	19	9	-52.63
507	993	SDC	Very High Risk	34.227	75.222	GL	4148	JK	India	11	5	-54.55
508	958	SDC	Very High Risk	34.138	75.416	GL	4103	JK	India	7	0	-100.00
509	173	SDC	Medium Risk	34.765	76.71	GL	5150	JK	India	#	4	-
510	976	SDC	15I/High Risk	34.185	75.372	GL	4314	JK	India	#	16	-
511	2147	SDC	Medium Risk	30.98	79.487	GL	5688	UK	India	#	0	-
512	182	SDC	Very High Risk	34.234	75.325	GL	4304	JK	India	#	8	-
513	98	SDC	High Risk	34.392	75.085	GL	4103	JK	India	#	2	-
514	1936	SDC	321I/Very High Risk	32.256	76.777	GL	4606	HP	India	#	3	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Latitude	Longitude	Lake Type	Elevation (m)	State/UT	Country	Area of June-2022 (Base Month)(ha)	Area of Aug-2022 (ha)	Change in Area of Aug wrt Base month(%)
515	1998	SDC	Very High Risk	32.32	76.908	GL	3857	HP	India	#	1	-
516	599	SDC	Very High Risk	27.695	88.716	GL	4251	SK	India	#	8	-
517	2299	SDC	Very High Risk	30.184	79.88	GL	4490	UK	India	#	#	#

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability

- Unobservable (as per NRSC) , #indicates frozen/ dried lakes

TABLE 7: WATER SPREAD AREA OFGLS UPTO 10 HA BUT SMALLER THAN 50 HA PREPARED BY NRSC IN 2009

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
518	03_82F_011	NRSC	-	GL	4720	Ø	Brahmaputra	China	3	7	133.33
519	02_62J_002	NRSC	-	GL	5021	Karnal	Ganga	Nepal	9	17	88.89
520	02_62F_014	NRSC	236G	GL	5481	Karnal	Ganga	China	5	9	80.00
521	03_82O_004	NRSC	-	GL	4148	Ø	Brahmaputra	China	10	18	80.00
522	03_78A_035	NRSC	-	GL	4998	Teesta	Brahmaputra	India	7	12	71.43
523	03_78I_001	NRSC	-	GL	5129	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	6	10	66.67
524	02_72I_026	NRSC	112G	GL	5188	Sun Kosi	Ganga	Nepal	18	30	66.67

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
525	02_62J_001	NRSC	-	GL	5182	Karnal	Ganga	Nepal	5	8	60.00
526	02_71P_001	NRSC	-	GL	5498	Arun Kosi	Ganga	China	15	24	60.00
527	02_62F_008	NRSC	-	GL	5620	Karnal	Ganga	Nepal	7	11	57.14
528	02_72I_017	NRSC	49G	GL	5018	Sun Kosi	Ganga	Nepal	7	11	57.14
529	02_71L_035	NRSC	657G	GL	5091	Sun Kosi	Ganga	Nepal	11	17	54.55
530	03_78I_004	NRSC	-	GL	5194	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	23	34	47.83
531	01_43J_003	NRSC		GL	3954	Jhelum	Indus	India	12	17	41.67
532	02_72I_02	NRSC	358G	GL	5165	Sun Kosi	Ganga	Nepal	28	39	39.29

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	4										
533	03_78I_026	NRSC	-	GL	5233	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	13	18	38.46
534	02_71P_023	NRSC	124G	GL	5235	Arun Kosi	Ganga	China	17	23	35.29
535	03_71P_002	NRSC	-	GL	5537	Ø	Brahmaputra	China	13	17	30.77
536	02_72I_030	NRSC	480G	GL	4624	Sun Kosi	Ganga	Nepal	7	9	28.57
537	03_82G_003	NRSC	-	GL	4936	Ø	Brahmaputra	China	15	19	26.67
538	02_71H_005	NRSC	-	GL	5010	Arun Kosi	Ganga	China	69	87	26.09
539	01_52A_003	NRSC	-	GL	4586	Shyok	Indus	India	16	20	25.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
540	01_62F_009	NRSC	387I	GL	5712	Sutlej	Indus	China	20	25	25.00
541	02_62K_001	NRSC	329G	GL	4404	Karnal	Ganga	Nepal	24	30	25.00
542	02_71P_034	NRSC	726G	GL	5259	Arun Kosi	Ganga	China	20	25	25.00
543	02_53N_001	NRSC	250G	GL	4688	Ganga	Ganga	India	21	26	23.81
544	03_78E_011	NRSC	-	GL	4952	Puna Tsang Chhu	Brahmaputra	Bhutan	18	22	22.22
545	03_78I_020	NRSC	-	GL	5331	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	18	22	22.22
546	03_77L_065	NRSC	-	GL	5025	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	14	17	21.43

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
547	02_62O_004	NRSC	299G	GL	5529	Kali Gandak	Ganga	Nepal	19	23	21.05
548	02_71P_030	NRSC	166G	GL	5329	Arun Kosi	Ganga	China	20	24	20.00
549	02_78A_001	NRSC	498G	GL	5201	Arun Kosi	Ganga	China	20	24	20.00
550	02_72I_031	NRSC	14G	GL	4777	Sun Kosi	Ganga	Nepal	26	31	19.23
551	02_62F_015	NRSC	59G	GL	5359	Karnal	Ganga	China	27	32	18.52
552	03_77L_028	NRSC	-	GL	4632	KuriChhu	Brahmaputra	China	12	14	16.67
553	03_78A_005	NRSC	-	GL	5201	Teesta	Brahmaputra	India	12	14	16.67
554	01_52A_002	NRSC	-	GL	4537	Shyok	Indus	India	19	22	15.79

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
555	03_82J_006	NRSC	-	GL	3657	Ø	Brahmaputra	China	51	59	15.69
556	02_71P_026	NRSC	322G	GL	5340	Arun Kosi	Ganga	China	13	15	15.38
557	03_62J_025	NRSC	-	GL	5362	Ø	Brahmaputra	China	20	23	15.00
558	03_77H_005	NRSC	-	GL	5113	Ø	Brahmaputra	China	20	23	15.00
559	03_77L_071	NRSC	-	GL	5228	Puna Tsang Chhu	Brahmaputra	Bhutan	20	23	15.00
560	02_71H_020	NRSC	-	GL	5354	Arun Kosi	Ganga	China	69	79	14.49
561	02_62F_016	NRSC	591G	GL	5359	Karnal	Ganga	Nepal	14	16	14.29
562	02_71L_033	NRSC	408G	GL	5369	Sun Kosi	Ganga	Nepal	14	16	14.29

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
563	03_78E_025	NRSC		GL	4341	Puna Tsang Chhu	Brahmaputra	Bhutan	14	16	14.29
564	02_62K_011	NRSC	612G	GL	4673	Bheri	Ganga	Nepal	28	31	10.71
565	03_78E_001	NRSC	-	GL	5157	Puna Tsang Chhu	Brahmaputra	Bhutan	28	31	10.71
566	03_77L_023	NRSC	-	GL	5489	KuriChhu	Brahmaputra	China	29	32	10.34
567	02_71L_031	NRSC	52G	GL	4682	Sun Kosi	Ganga	China	29	32	10.34
568	01_52H_003	NRSC	-	GL	4165	Chenab	Indus	India	147	162	10.20
569	01_62J_004	NRSC	446I	GL	5504	Sutlej	Indus	China	10	11	10.00
570	03_71P_004	NRSC	-	GL	5637	Ø	Brahmaputra	China	10	11	10.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
571	03_82N_008	NRSC	-	GL	4546	Ø	Brahmaputra	China	32	35	9.38
572	03_78A_016	NRSC	-	GL	5451	Teesta	Brahmaputra	India	11	12	9.09
573	03_78A_019	NRSC/SDC	Very High Risk	GL	4809	Teesta	Brahmaputra	India	11	12	9.09
574	02_71L_017	NRSC	179G	GL	5211	Sun Kosi	Ganga	China	13	14	7.69
575	03_77H_021	NRSC	-	GL	5135	Puna Tsang Chhu	Brahmaputra	Bhutan	13	14	7.69
576	03_77L_038	NRSC	-	GL	5521	Ø	Brahmaputra	China	13	14	7.69
577	03_78I_025	NRSC	-	GL	5194	Puna Tsang Chhu	Brahmaputra	Bhutan	13	14	7.69
578	03_62J_028	NRSC	-	GL	5603	Ø	Brahmaputra	China	40	43	7.50

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
579	03_82J_001	NRSC	-	GL	4775	Ø	Brahmaputra	China	27	29	7.41
580	01_52C_001	NRSC	11I	GL	4394	Shingo (Indus)	Indus	India	55	59	7.27
581	03_82F_001	NRSC	-	GL	4822	Ø	Brahmaputra	China	14	15	7.14
582	03_82C_011	NRSC	-	GL	5242	Ø	Brahmaputra	China	14	15	7.14
583	02_72I_016	NRSC	739G	GL	5231	Sun Kosi	Ganga	Nepal	28	30	7.14
584	03_78A_027	NRSC/SDC	Very High Risk	GL	4888	Teesta	Brahmaputra	India	30	32	6.67
585	03_77L_058	NRSC	-	GL	5016	KuriChhu	Brahmaputra		32	34	6.25
586	02_72M_012	NRSC	69G	GL	4932	TamurKosi	Ganga	Nepal	16	17	6.25

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
587	03_83A_004	NRSC		GL	5109	Dangme Chhu	Brahmaputra	India	16	17	6.25
588	03_77L_061	NRSC	-	GL	5038	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	17	18	5.88
589	03_77L_074	NRSC	-	GL	5324	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	17	18	5.88
590	02_72I_006	NRSC	-	GL	4741	Sun Kosi	Ganga	Nepal	17	18	5.88
591	03_71D_002	NRSC	-	GL	5574	Ø	Brahmaputra	China	35	37	5.71
592	03_91C_004	NRSC	-	GL	4137	Ø	Brahmaputra	China	18	19	5.56
593	02_71P_032	NRSC	564G	GL	5190	Arun Kosi	Ganga	China	18	19	5.56

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
594	03_77L_031	NRSC	-	GL	4698	KuriChhu	Brahmaputra	China	18	19	5.56
595	03_82F_024	NRSC	-	GL	4197	Ø	Brahmaputra	China	19	20	5.26
596	03_78I_014	NRSC	-	GL	5087	Puna Tsang Chhu	Brahmaputra	Bhutan	19	20	5.26
597	02_71P_042	NRSC	654G	GL	5524	Arun Kosi	Ganga	China	20	21	5.00
598	02_62B_004	NRSC	232G	GL	4918	Sarda	Ganga	India	21	22	4.76
599	01_62F_007	NRSC	-	GL	5344	Sutlej	Indus	China	21	22	4.76
600	03_78I_006	NRSC	-	GL	5158	Puna Tsang Chhu	Brahmaputra	Bhutan	21	22	4.76
601	03_78I_067	NRSC	-	GL	4918	Manas Chhu&Ma	Brahmaputra	Bhutan	21	22	4.76

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
						ngdeChhu					
602	03_62J_027	NRSC	-	GL	4781	Ø	Brahmaputra	China	22	23	4.55
603	02_71L_015	NRSC	284G	GL	5261	Sun Kosi	Ganga	China	22	23	4.55
604	03_82F_009	NRSC	-	GL	4712	Ø	Brahmaputra	China	23	24	4.35
605	03_62K_013	NRSC	-	GL	5101	Ø	Brahmaputra	China	46	48	4.35
606	03_77L_036	NRSC	-	GL	5810	KuriChhu	Brahmaputra	China	23	24	4.35
607	02_71D_003	NRSC	67G	GL	3668	Trisuli	Ganga	Nepal	26	27	3.85
608	03_78A_012	NRSC	-	GL	5130	Teesta	Brahmaputra	India	29	30	3.45
609	02_72I_02	NRSC	287G	GL	5344	Sun Kosi	Ganga	Nepal	30	31	3.33

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	2										
610	02_71H_018	NRSC	123G	GL	4787	Trisuli	Ganga	China	31	32	3.23
611	03_78A_010	NRSC	-	GL	5078	Teesta	Brahmaputra	India	33	34	3.03
612	02_71H_006	NRSC	-	GL	5167	Arun Kosi	Ganga	China	34	35	2.94
613	03_77K_002	NRSC	-	GL	5154	Ø	Brahmaputra	China	37	38	2.70
614	02_72I_012	NRSC	113G	GL	4409	Sun Kosi	Ganga	Nepal	40	41	2.50
615	03_77L_039	NRSC	-	GL	5457	KuriChhu	Brahmaputra	China	42	43	2.38
616	01_52C_002	NRSC	46I	GL	4092	Chenab	Indus	India	43	44	2.33
617	03_77L_05	NRSC	-	GL	4897	KuriChhu	Brahmaput		44	45	2.27

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	7						ra				
618	02_77D_011	NRSC	393G	GL	5305	Arun Kosi	Ganga	China	45	46	2.22
619	03_77H_024	NRSC	-	GL	4369	Puna Tsang Chhu	Brahmaputra	Bhutan	46	47	2.17
620	03_77L_062	NRSC	-	GL	5295	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	47	48	2.13
621	03_91C_035	NRSC		GL	4283	Ø	Brahmaputra	China	54	55	1.85
622	02_62B_005	NRSC	580G	GL	4314	Sarda	Ganga	India	8	8	0.00
623	02_62F_006	NRSC	-	GL	5444	Karnal	Ganga	Nepal	15	15	0.00
624	02_62F_007	NRSC	-	GL	5179	Karnal	Ganga	Nepal	12	12	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
625	02_62F_011	NRSC	362G	GL	5524	Karnal	Ganga	China	26	26	0.00
626	02_62F_013	NRSC	256G	GL	5252	Karnal	Ganga	China	45	45	0.00
627	01_52L_006	NRSC	306I	GL	5727	Indus	Indus	India	10	10	0.00
628	03_62J_004	NRSC	-	GL	5556	Ø	Brahmaputra	China	15	15	0.00
629	03_62J_009	NRSC	-	GL	5624	Ø	Brahmaputra	China	24	24	0.00
630	03_62J_020	NRSC	-	GL	5603	Ø	Brahmaputra	China	15	15	0.00
631	03_62J_024	NRSC	-	GL	5548	Ø	Brahmaputra	China	20	20	0.00
632	03_82F_023	NRSC	-	GL	4354	Ø	Brahmaputra	China	8	8	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
633	03_82F_026	NRSC	-	GL	4607	Ø	Brahmaputra	China	10	10	0.00
634	03_82N_015	NRSC	-	GL	5090	Ø	Brahmaputra	China	5	5	0.00
635	03_82O_002	NRSC	-	GL	4198	Ø	Brahmaputra	China	19	19	0.00
636	03_91C_006	NRSC	-	GL	5057	Ø	Brahmaputra	China	4	4	0.00
637	03_91C_012	NRSC	-	GL	4663	Ø	Brahmaputra	China	17	17	0.00
638	03_91G_001	NRSC	-	GL	5147	Ø	Brahmaputra	China	9	9	0.00
639	02_62G_002	NRSC	599G	GL	4822	Karnal	Ganga	Nepal	19	19	0.00
640	02_62G_003	NRSC	589G	GL	3603	Karnal	Ganga	Nepal	33	33	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
641	02_62P_001	NRSC	258G	GL	4472	Bheri	Ganga	Nepal	45	45	0.00
642	02_71H_010	NRSC	-	GL	5481	Arun Kosi	Ganga	China	25	25	0.00
643	03_62K_007	NRSC	-	GL	4911	Ø	Brahmaputra	China	29	29	0.00
644	03_62K_008	NRSC	-	GL	4968	Ø	Brahmaputra	China	42	42	0.00
645	03_77K_003	NRSC	-	GL	5303	Ø	Brahmaputra	China	10	10	0.00
646	03_77L_020	NRSC	-	GL	4682	KuriChhu	Brahmaputra	China	9	9	0.00
647	03_77L_022	NRSC	-	GL	4810	KuriChhu	Brahmaputra	China	10	10	0.00
648	03_82L_006	NRSC	-	GL	4147	Ø	Brahmaputra	China	13	13	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
649	03_91C_015	NRSC	-	GL	4421	Ø	Brahmaputra	China	21	21	0.00
650	03_91C_016	NRSC	-	GL	4813	Ø	Brahmaputra	China	13	13	0.00
651	03_91C_019	NRSC	-	GL	3858	Ø	Brahmaputra	China	49	49	0.00
652	02_71H_025	NRSC	464G	GL	5303	Trisuli	Ganga	China	19	19	0.00
653	02_71L_012	NRSC	96G	GL	5570	Sun Kosi	Ganga	China	21	21	0.00
654	02_71L_014	NRSC	240G	GL	5364	Sun Kosi	Ganga	China	16	16	0.00
655	02_71L_019	NRSC	323G	GL	5378	Sun Kosi	Ganga	China	12	12	0.00
656	02_71L_021	NRSC	438G	GL	5373	Sun Kosi	Ganga	China	17	17	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
657	02_71L_027	NRSC	433G	GL	5234	Sun Kosi	Ganga	China	18	18	0.00
658	02_71L_022	NRSC	715G	GL	5554	Arun Kosi	Ganga	China	27	27	0.00
659	02_71P_024	NRSC	576G	GL	5273	Arun Kosi	Ganga	China	22	22	0.00
660	02_71P_036	NRSC	54G	GL	5121	Arun Kosi	Ganga	China	38	38	0.00
661	02_71P_038	NRSC	586G	GL	5483	Arun Kosi	Ganga	China	27	27	0.00
662	02_71P_041	NRSC	768G	GL	5064	Arun Kosi	Ganga	China	18	18	0.00
663	02_77D_005	NRSC	499G	GL	5738	Arun Kosi	Ganga	China	7	7	0.00
664	03_77H_009	NRSC	-	GL	5150	Ø	Brahmaputra	China	15	15	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
665	03_77H_015	NRSC	-	GL	4801	Ø	Brahmaputra	China	14	14	0.00
666	03_77H_026	NRSC	-	GL	5233	Ø	Brahmaputra	China	10	10	0.00
667	03_77H_027	NRSC	-	GL	4927	Ø	Brahmaputra	China	22	22	0.00
668	03_77H_025	NRSC	-	GL	4312	Puna Tsang Chhu	Brahmaputra	Bhutan	25	25	0.00
669	03_77L_034	NRSC	-	GL	5500	KuriChhu	Brahmaputra	China	22	22	0.00
670	03_77L_056	NRSC	-	GL	4963	KuriChhu	Brahmaputra	China	14	14	0.00
671	03_77L_079	NRSC	-	GL	5386	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	35	35	0.00
672	03_78I_00	NRSC	-	GL	5108	Manas	Brahmaput	Bhutan	26	26	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	9					Chhu&MangdeChhu	ra				
673	02_71L_030	NRSC	242G	GL	5242	Sun Kosi	Ganga	China	21	21	0.00
674	02_72I_008	NRSC	99G	GL	5040	Sun Kosi	Ganga		36	36	0.00
675	02_72I_010	NRSC	263G	GL	5125	Sun Kosi	Ganga	Nepal	14	14	0.00
676	02_72I_019	NRSC	757G	GL	5510	Sun Kosi	Ganga	Nepal	17	17	0.00
677	02_72I_021	NRSC	764G	GL	5276	Sun Kosi	Ganga	Nepal	20	20	0.00
678	02_71P_046	NRSC	317G	GL	4898	Arun Kosi	Ganga	China	28	28	0.00
679	02_71P_048	NRSC	283G	GL	5094	Arun Kosi	Ganga	China	18	18	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
680	02_77D_010	NRSC	590G	GL	5127	Arun Kosi	Ganga	China	37	37	0.00
681	02_72M_003	NRSC	823G	GL	5608	Arun Kosi	Ganga	China	18	18	0.00
682	02_78A_006	NRSC	676G	GL	5743	Arun Kosi	Ganga	China	16	16	0.00
683	02_72M_013	NRSC	518G	GL	5233	Arun Kosi	Ganga	Nepal	12	12	0.00
684	02_72M_008	NRSC	376G	GL	4722	TamurKosi	Ganga	Nepal	38	38	0.00
685	02_78A_007	NRSC	429G	GL	5618	TamurKosi	Ganga	Nepal	15	15	0.00
686	02_72M_015	NRSC	115G	GL	4969	TamurKosi	Ganga	Nepal	13	13	0.00
687	03_78A_004	NRSC	-	GL	5456	Ø	Brahmaputra	China	23	23	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
688	03_78A_006	NRSC	-	GL	5004	Teesta	Brahmaputra	India	14	14	0.00
689	03_78A_011	NRSC	-	GL	5168	Amo Chhu	Brahmaputra	China	16	16	0.00
690	03_83A_003	NRSC	-	GL	5188	Dangme Chhu	Brahmaputra	India	82	82	0.00
691	03_83A_005	NRSC	-	GL	4994	Dangme Chhu	Brahmaputra	India	12	12	0.00
692	03_78I_015	NRSC	-	GL	5116	Puna Tsang Chhu	Brahmaputra	Bhutan	15	15	0.00
693	03_78E_003	NRSC	-	GL	5152	Puna Tsang Chhu	Brahmaputra	Bhutan	22	22	0.00
694	03_78I_036	NRSC	-	GL	5028	Puna Tsang Chhu	Brahmaputra	Bhutan	12	12	0.00
695	03_78I_019	NRSC	-	GL	5224	Manas Chhu&Ma	Brahmaputra	Bhutan	24	24	0.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
						ngdeChhu					
696	03_78I_037	NRSC	-	GL	5159	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	15	15	0.00
697	03_78I_046	NRSC	-	GL	5168	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	22	22	0.00
698	03_78I_054	NRSC	-	GL	5138	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	15	15	0.00
699	03_78I_058	NRSC	-	GL	5041	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	26	26	0.00
700	03_78I_064	NRSC	-	GL	4976	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	20	20	0.00
701	03_78I_00	NRSC	-	GL	5338	Puna Tsang	Brahmaput	Bhutan	45	44	-2.22

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	5					Chhu	ra				
702	03_78I_057	NRSC	-	GL	5060	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	45	44	-2.22
703	03_82O_001	NRSC	-	GL	4348	Ø	Brahmaputra	China	42	41	-2.38
704	03_77L_045	NRSC	-	GL	5224	KuriChhu	Brahmaputra	China	33	32	-3.03
705	03_82G_004	NRSC	-	GL	4498	Ø	Brahmaputra	China	31	30	-3.23
706	02_71H_024	NRSC	155G	GL	4890	Trisuli	Ganga	China	27	26	-3.70
707	03_77H_017	NRSC	-	GL	4537	Puna Tsang Chhu	Brahmaputra	Bhutan	26	25	-3.85
708	02_72I_028	NRSC	146G	GL	4408	Sun Kosi	Ganga	Nepal	26	25	-3.85

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
709	02_71H_032	NRSC	-	GL	5116	Sun Kosi	Ganga	China	25	24	-4.00
710	03_82N_025	NRSC	-	GL	4764	Ø	Brahmaputra	China	24	23	-4.17
711	03_83A_001	NRSC	-	GL	5018	Ø	Brahmaputra	China	48	46	-4.17
712	03_62K_011	NRSC	-	GL	5136	Ø	Brahmaputra	China	45	43	-4.44
713	03_62K_005	NRSC	-	GL	4999	Ø	Brahmaputra	China	22	21	-4.55
714	02_72M_014	NRSC	47G	GL	5217	TamurKosi	Ganga	Nepal	22	21	-4.55
715	02_72I_020	NRSC	763G	GL	5436	Sun Kosi	Ganga	Nepal	21	20	-4.76
716	03_78I_043	NRSC	-	GL	5000	Manas Chhu&Ma	Brahmaputra	Bhutan	21	20	-4.76

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
						ngdeChhu					
717	03_82F_012	NRSC	-	GL	4454	Ø	Brahmaputra	China	20	19	-5.00
718	03_77H_022	NRSC	-	GL	4936	Ø	Brahmaputra	China	20	19	-5.00
719	03_78A_008	NRSC	-	GL	4998	Teesta	Brahmaputra	India	19	18	-5.26
720	02_71L_025	NRSC	154G	GL	5357	Sun Kosi	Ganga	China	19	18	-5.26
721	02_71P_039	NRSC	396G	GL	5489	Arun Kosi	Ganga	China	19	18	-5.26
722	03_78E_027	NRSC	-	GL	4808	Puna Tsang Chhu	Brahmaputra	Bhutan	19	18	-5.26
723	02_71L_008	NRSC	457G	GL	5577	Sun Kosi	Ganga	China	36	34	-5.56
724	02_72I_00	NRSC	-	GL	5292	Sun Kosi	Ganga	Nepal	18	17	-5.56

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	9										
725	02_72I_013	NRSC	694G	GL	5497	Sun Kosi	Ganga	Nepal	18	17	-5.56
726	03_62K_010	NRSC	-	GL	5181	Ø	Brahmaputra	China	70	66	-5.71
727	02_72I_018	NRSC	776G	GL	5370	Sun Kosi	Ganga	Nepal	35	33	-5.71
728	03_91H_006	NRSC	-	GL	4620	Lohit	Brahmaputra	China	17	16	-5.88
729	03_78E_016	NRSC	-	GL	5004	Ø	Brahmaputra	China	17	16	-5.88
730	03_78A_007	NRSC/SDC	Very High Risk	GL	4977	Teesta	Brahmaputra	India	17	16	-5.88
731	03_82L_007	NRSC	-	GL	4163	Ding	Brahmaputra	India	16	15	-6.25
732	02_71L_01	NRSC	651G	GL	5377	Sun Kosi	Ganga	China	15	14	-6.67

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	8										
733	03_77H_010	NRSC	-	GL	5518	Ø	Brahmaputra	China	15	14	-6.67
734	03_77L_078	NRSC	-	GL	5296	Puna Tsang Chhu	Brahmaputra	Bhutan	15	14	-6.67
735	03_77J_005	NRSC	-	GL	5766	Ø	Brahmaputra	China	14	13	-7.14
736	03_91H_034	NRSC	-	GL	4629	Lohit	Brahmaputra	China	14	13	-7.14
737	02_71H_036	NRSC	195G	GL	5024	Trisuli	Ganga	Nepal	14	13	-7.14
738	02_71H_016	NRSC	-	GL	5305	Arun Kosi	Ganga	China	26	24	-7.69
739	02_71L_007	NRSC	572G	GL	5576	Arun Kosi	Ganga	China	13	12	-7.69
740	03_78I_00	NRSC	-	GL	5252	Manas	Brahmaput	Bhutan	13	12	-7.69

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	8					Chhu&MangdeChhu	ra				
741	02_72I_001	NRSC	198G	GL	5333	Sun Kosi	Ganga	Nepal	13	12	-7.69
742	02_78A_008	NRSC	199G	GL	5032	TamurKosi	Ganga	Nepal	26	24	-7.69
743	03_77D_007	NRSC/SDC	Very High Risk	GL	5015	Teesta	Brahmaputra	India	26	24	-7.69
744	03_62J_010	NRSC	-	GL	5571	Ø	Brahmaputra	China	25	23	-8.00
745	02_71H_023	NRSC	-	GL	5595	Arun Kosi	Ganga	China	61	56	-8.20
746	03_82L_004	NRSC	-	GL	4441	Ø	Brahmaputra	China	12	11	-8.33
747	03_91G_007	NRSC	-	GL	4785	Lohit	Brahmaputra	China	12	11	-8.33

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
748	03_82F_005	NRSC	-	GL	4762	Ø	Brahmaputra	China	47	43	-8.51
749	03_91C_071	NRSC	-	GL	4339	Dibang	Brahmaputra	China	35	32	-8.57
750	02_71H_009	NRSC	-	GL	5448	Arun Kosi	Ganga	China	23	21	-8.70
751	03_78I_011	NRSC	-	GL	5239	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	23	21	-8.70
752	02_62F_010	NRSC	-	GL	5502	Karnal	Ganga	Nepal	11	10	-9.09
753	03_62J_003	NRSC	-	GL	5553	Ø	Brahmaputra	China	11	10	-9.09
754	03_62O_035	NRSC	-	GL	5256	Ø	Brahmaputra	China	33	30	-9.09
755	02_72I_01	NRSC	814G	GL	5416	Sun Kosi	Ganga	Nepal	44	40	-9.09

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	5										
756	02_62K_003	NRSC	546G	GL	4571	Karnal	Ganga	Nepal	43	39	-9.30
757	03_91C_021	NRSC	-	GL	4093	Ø	Brahmaputra	China	31	28	-9.68
758	03_78A_002	NRSC/SDC	Very High Risk	GL	4952	Teesta	Brahmaputra	India	41	37	-9.76
759	01_62B_002	NRSC	381I	GL	4998	Sutlej	Indus	China	20	18	-10.00
760	02_71H_022	NRSC	-	GL	5735	Arun Kosi	Ganga	China	20	18	-10.00
761	03_78A_015	NRSC/SDC	Medium Risk	GL	4970	Teesta	Brahmaputra	India	10	9	-10.00
762	03_91G_009	NRSC	-	GL	4637	Lohit	Brahmaputra	China	19	17	-10.53
763	02_71L_00	NRSC	282G	GL	5524	Arun Kosi	Ganga	China	19	17	-10.53

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	5										
764	02_71L_024	NRSC	245G	GL	5263	Sun Kosi	Ganga	China	27	24	-11.11
765	03_77L_048	NRSC	-	GL	4792	KuriChhu	Brahmaputra	China	27	24	-11.11
766	03_62O_031	NRSC	-	GL	5381	Ø	Brahmaputra	China	34	30	-11.76
767	02_72M_004	NRSC	336G	GL	5293	Arun Kosi	Ganga	China	56	49	-12.50
768	03_78A_030	NRSC	-	GL	4447	Amo Chhu	Brahmaputra		16	14	-12.50
769	03_77L_019	NRSC	-	GL	5681	Ø	Brahmaputra	China	15	13	-13.33
770	02_71H_031	NRSC	78G	GL	5268	Sun Kosi	Ganga	China	30	26	-13.33
771	02_71L_02	NRSC	156G	GL	5348	Sun Kosi	Ganga	China	30	26	-13.33

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	0										
772	03_82N_001	NRSC	-	GL	5055	Ø	Brahmaputra	China	36	31	-13.89
773	03_91G_003	NRSC	-	GL	5018	Lohit	Brahmaputra	China	21	18	-14.29
774	02_71H_030	NRSC	598G	GL	5411	Sun Kosi	Ganga	China	14	12	-14.29
775	03_77L_082	NRSC	-	GL	5019	Puna Tsang Chhu	Brahmaputra	Bhutan	14	12	-14.29
776	02_78A_002	NRSC	668G	GL	5397	Arun Kosi	Ganga	China	14	12	-14.29
777	02_72M_001	NRSC	737G	GL	5675	Arun Kosi	Ganga	China	7	6	-14.29
778	03_78I_040	NRSC	-	GL	5167	Puna Tsang Chhu	Brahmaputra	Bhutan	21	18	-14.29
779	02_71L_00	NRSC	520G	GL	5546	Arun Kosi	Ganga	China	33	28	-15.15

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	9										
780	03_78A_023	NRSC	-	GL	4547	Teesta	Brahmaputra	India	33	28	-15.15
781	02_71H_004	NRSC	-	GL	5239	Arun Kosi	Ganga	China	26	22	-15.38
782	03_78I_072	NRSC	-	GL	4788	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	13	11	-15.38
783	03_91G_004	NRSC	-	GL	5262	Lohit	Brahmaputra	China	32	27	-15.63
784	03_77L_075	NRSC	-	GL	4718	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	19	16	-15.79
785	03_77D_006	NRSC/SDC	Very High Risk	GL	5084	Teesta	Brahmaputra	India	25	21	-16.00
786	02_71D_0	NRSC		GL	4063	Trisuli	Ganga	Nepal	6	5	-16.67

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	02										
787	03_78A_026	NRSC	-	GL	4736	Teesta	Brahmaputra	India	12	10	-16.67
788	03_77H_029	NRSC	-	GL	5049	Puna Tsang Chhu	Brahmaputra	Bhutan	23	19	-17.39
789	03_82K_109	NRSC	-	GL	4356	Ø	Brahmaputra	China	22	18	-18.18
790	03_91C_043	NRSC	-	GL	4429	Ø	Brahmaputra	China	11	9	-18.18
791	03_77L_047	NRSC	-	GL	4364	Puna Tsang Chhu	Brahmaputra	Bhutan	48	39	-18.75
792	03_78A_020	NRSC	-	GL	5219	Teesta	Brahmaputra	India	16	13	-18.75
793	03_71C_006	NRSC	-	GL	5482	Ø	Brahmaputra	China	21	17	-19.05
794	02_71P_03	NRSC	141G	GL	5395	Arun Kosi	Ganga	China	21	17	-19.05

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	1										
795	02_71P_033	NRSC	-	GL	4888	Arun Kosi	Ganga	China	21	17	-19.05
796	02_71L_029	NRSC	747G	GL	5237	Arun Kosi	Ganga	China	52	42	-19.23
797	02_62F_009	NRSC	536G	GL	5586	Karnal	Ganga	China	10	8	-20.00
798	03_78I_038	NRSC	-	GL	5143	Puna Tsang Chhu	Brahmaputra	Bhutan	10	8	-20.00
799	03_91G_006	NRSC	-	GL	5028	Lohit	Brahmaputra	China	24	19	-20.83
800	02_62O_005	NRSC	609G	GL	5450	Kali Gandak	Ganga	Nepal	14	11	-21.43
801	02_62O_002	NRSC	410G	GL	5495	Kali Gandak	Ganga	Nepal	23	18	-21.74
802	03_91H_0	NRSC	-	GL	4457	Lohit	Brahmaput	China	23	18	-21.74

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	36						ra				
803	02_71H_014	NRSC	-	GL	4458	Trisuli	Ganga	China	9	7	-22.22
804	02_71P_044	NRSC	557G	GL	5555	Arun Kosi	Ganga	China	9	7	-22.22
805	03_77H_016	NRSC	-	GL	4929	Ø	Brahmaputra	China	44	34	-22.73
806	03_77L_073	NRSC	-	GL	5166	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	13	10	-23.08
807	03_71P_003	NRSC	-	GL	5360	Ø	Brahmaputra	China	34	26	-23.53
808	03_83A_007	NRSC	-	GL	5028	Jia Brali	Brahmaputra	India	17	13	-23.53
809	03_82N_016	NRSC	-	GL	5017	Ø	Brahmaputra	China	4	3	-25.00

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
810	03_91H_033	NRSC	-	GL	4389	Lohit	Brahmaputra	China	12	9	-25.00
811	03_77L_049	NRSC	-	GL	4716	Puna Tsang Chhu	Brahmaputra	Bhutan	38	28	-26.32
812	03_82L_008	NRSC	-	GL	4342	Ø	Brahmaputra	China	11	8	-27.27
813	03_78I_065	NRSC	-	GL	4668	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	14	10	-28.57
814	03_77L_025	NRSC	-	GL	5370	KuriChhu	Brahmaputra	China	17	12	-29.41
815	03_77J_001	NRSC	-	GL	5354	Ø	Brahmaputra	China	27	19	-29.63
816	03_71C_002	NRSC	-	GL	5663	Ø	Brahmaputra	China	10	7	-30.00
817	03_78A_0	NRSC	-	GL	4305	Teesta	Brahmaput	India	13	9	-30.77

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	31						ra				
818	03_91H_001	NRSC	-	GL	4429	Lohit	Brahmaputra	China	19	13	-31.58
819	02_71D_001	NRSC	-	GL	4111	Trisuli	Ganga	Nepal	25	17	-32.00
820	03_91D_070	NRSC	-	GL	4126	Lohit	Brahmaputra	China	18	12	-33.33
821	03_91H_003	NRSC	-	GL	4439	Lohit	Brahmaputra	China	15	10	-33.33
822	03_78E_008	NRSC	-	GL	5045	Puna Tsang Chhu	Brahmaputra	Bhutan	12	8	-33.33
823	03_71B_001	NRSC	-	GL	5692	Ø	Brahmaputra	China	29	19	-34.48
824	03_71C_004	NRSC	-	GL	5575	Ø	Brahmaputra	China	14	9	-35.71
825	03_91C_02	NRSC	-	GL	4811	Lohit	Brahmaput	China	19	12	-36.84

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	3						ra				
826	03_78I_028	NRSC	-	GL	4792	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	23	14	-39.13
827	03_71C_001	NRSC	-	GL	5543	Ø	Brahmaputra	China	9	5	-44.44
828	03_71D_001	NRSC	-	GL	5454	Ø	Brahmaputra	China	20	11	-45.00
829	03_78I_022	NRSC	-	GL	5048	Manas Chhu&MangdeChhu	Brahmaputra	Bhutan	17	9	-47.06
830	03_82N_011	NRSC	-	GL	4997	Ø	Brahmaputra	China	27	14	-48.15
831	02_71H_034	NRSC	320G	GL	4745	Trisuli	Ganga	Nepal	22	10	-54.55
832	03_91D_0	NRSC	-	GL	4550	Lohit	Brahmaput	China	55	23	-58.18

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	82						ra				
833	02_62K_006	NRSC	70G	GL	5053	Karnal	Ganga	Nepal	50	20	-60.00
834	03_77J_002	NRSC	-	GL	5254	Ø	Brahmaputra	China	13	4	-69.23
835	03_77H_019	NRSC	-	GL	4804	Puna Tsang Chhu	Brahmaputra	Bhutan	10	3	-70.00
836	03_71D_003	NRSC	-	GL	5362	Ø	Brahmaputra	China	11	3	-72.73
837	03_77H_032	NRSC	-	GL	5056	Ø	Brahmaputra	China	12	3	-75.00
838	01_53M_002	NRSC	142I	GL	5468	Indus	Indus	China	10	2	-80.00
839	02_71P_017	NRSC	-	GL	4194	Arun Kosi	Ganga	China	78	0	0.00
840	02_62B_00	NRSC	495G	GL	5106	Karnal	Ganga	China	#	43	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	6										
841	02_62B_007	NRSC	-	GL	4839	Sarda	Ganga	India	#	0	-
842	01_42H_002	NRSC	162I	GL	2763	Gilgit	Indus	India	#	15	-
843	01_52B_012	NRSC	129I	GL	5137	Indus	Indus	India	#	14	-
844	01_52L_007	NRSC	184I	GL	5498	Indus	Indus	India	#	33	-
845	01_52P_004	NRSC	-	GL	5470	Indus	Indus	China	0	0	-
846	01_53M_001	NRSC	33I	GL	5576	Indus	Indus	China	#	19	-
847	01_53M_003	NRSC	110I	GL	5511	Indus	Indus	China	9	0	-
848	01_61B_00	NRSC	345I	GL	5722	Indus	Indus	China	#	26	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	2										
849	01_62B_003	NRSC	86I	GL	5288	Sutlej	Indus	India	#	11	-
850	01_62E_007	NRSC	437I	GL	5641	Sutlej	Indus	China	#	14	-
851	01_62E_016	NRSC	270I	GL	5528	Sutlej	Indus	China	#	20	-
852	03_82F_013	NRSC	-	GL	4761	Ø	Brahmaputra	China	0	13	-
853	03_82F_018	NRSC	-	GL	4554	Ø	Brahmaputra	China	#	17	-
854	03_82F_021	NRSC	-	GL	4487	Ø	Brahmaputra	China	0	12	-
855	03_82F_025	NRSC	-	GL	4253	Ø	Brahmaputra	China	0	11	-
856	03_82J_00	NRSC	-	GL	4161	Ø	Brahmaput	China	#	31	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	3						ra				
857	03_82N_018	NRSC	-	GL	4333	Ø	Brahmaputra	China	#	10	-
858	03_82N_029	NRSC	-	GL	4492	Ø	Brahmaputra	China	#	42	-
859	03_82N_031	NRSC	-	GL	4409	Ø	Brahmaputra	China	#	16	-
860	03_82N_032	NRSC	-	GL	4384	Ø	Brahmaputra	China	#	43	-
861	03_82N_034	NRSC	-	GL	4181	Ø	Brahmaputra	China	#	15	-
862	03_82N_035	NRSC	-	GL	4479	Ø	Brahmaputra	China	#	19	-
863	03_82N_037	NRSC	-	GL	4691	Ø	Brahmaputra	China	#	10	-
864	03_82O_0	NRSC	-	GL	4180	Ø	Brahmaput	China	#	17	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	03						ra				
865	03_91C_002	NRSC	-	GL	4691	Ø	Brahmaputra	China	#	34	-
866	03_91C_003	NRSC	-	GL	4703	Ø	Brahmaputra	China	#	31	-
867	03_91C_007	NRSC	-	GL	4817	Ø	Brahmaputra	China	#	9	-
868	03_91C_008	NRSC	-	GL	4899	Ø	Brahmaputra	China	#	20	-
869	03_91C_010	NRSC	-	GL	4712	Ø	Brahmaputra	China	#	21	-
870	03_91C_013	NRSC	-	GL	4925	Ø	Brahmaputra	China	#	0	-
871	01_52A_004	NRSC/SDC	Very High Risk	GL	4619	Shyok	Indus	India	#	10	-
872	01_52B_01	NRSC/SDC	75I/Mediu	GL	5122	Indus	Indus	India	#	16	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	0		m Risk								
873	01_53I_002	NRSC/SDC	26I/Very High Risk	GL	4273	Sutlej	Indus	India	#	30	-
874	02_71H_011	NRSC	775G	GL	4509	Trisuli	Ganga	China	#	28	-
875	02_71H_013	NRSC	172G	GL	4446	Trisuli	Ganga	China	#	17	-
876	02_71H_019	NRSC	92G	GL	4674	Trisuli	Ganga	China	#	17	-
877	03_62K_006	NRSC	-	GL	5101	Ø	Brahmaputra	China	#	25	-
878	03_62O_045	NRSC	-	GL	5566	Ø	Brahmaputra	China	#	10	-
879	03_82G_007	NRSC	-	GL	4994	Ø	Brahmaputra	China	#	10	-
880	03_91C_02	NRSC	-	GL	4305	Dibang	Brahmaput	India	#	20	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	6						ra				
881	03_91C_036	NRSC	-	GL	4298	Ø	Brahmaputra	China	#	0	-
882	03_91D_075	NRSC	-	GL	4274	Dibang	Brahmaputra	India	#	18	-
883	03_91D_096	NRSC	-	GL	3794	Lohit	Brahmaputra	China	#	0	-
884	03_91D_098	NRSC	-	GL	4197	Lohit	Brahmaputra	China	#	8	-
885	03_91D_099	NRSC	-	GL	4406	Lohit	Brahmaputra	China	#	26	-
886	03_91G_005	NRSC	-	GL	5170	Lohit	Brahmaputra	China	#	11	-
887	03_91H_007	NRSC	-	GL	4635	Lohit	Brahmaputra	China	#	35	-
888	03_91H_0	NRSC	-	GL	4755	Lohit	Brahmaput	China	#	42	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	08						ra				
889	03_91H_015	NRSC	-	GL	4553	Lohit	Brahmaputra	China	#	8	-
890	03_91H_073	NRSC	-	GL	4481	Lohit	Brahmaputra	India	#	15	-
891	02_71L_016	NRSC	570G	GL	5345	Sun Kosi	Ganga	China	#	10	-
892	02_71P_020	NRSC	-	GL	4200	Arun Kosi	Ganga	China	#	115	-
893	03_77L_053	NRSC	-	GL	4793	KuriChhu	Brahmaputra	China	#	23	-
894	03_77L_040	NRSC	-	GL	4515	Puna Tsang Chhu	Brahmaputra	Bhutan	#	0	-
895	03_77L_054	NRSC	-	GL	4717	Puna Tsang Chhu	Brahmaputra	Bhutan	#	1	-
896	03_77L_06	NRSC	-	GL	5183	Manas	Brahmaput	Bhutan	#	13	-

S.No	Lake_ID	Inventory Developed by	Rank of Vulnerability	Lake Type	Elevation (m)	River	Basin	Country	Area of June-2022 (Base Month) (ha)	Area of August-2022 (ha)	Change in Area of Augustwrt Base month (%)
	3					Chhu&MangdeChhu	ra				
897	02_72I_005	NRSC	483G	GL	4715	Sun Kosi	Ganga	Nepal	#	27	-
898	02_72M_011	NRSC	86G	GL	4865	Arun Kosi	Ganga	Nepal	#	42	-
899	03_78E_018	NRSC	-	GL	5164	Ø	Brahmaputra	China	#	19	-
900	03_78A_017	NRSC	-	GL	5545	Teesta	Brahmaputra	India	#	28	-
901	03_78A_025	NRSC	-	GL	4888	Amo Chhu	Brahmaputra		#	7	-
902	03_78M_013	NRSC	-	GL	4232	KuriChhu	Brahmaputra	Bhutan	#	5	-

G stands for Ganga, I for Indus and B for Brahmaputra under the rank of vulnerability,

- Unobservable (as per NRSC) ,Ø indicates small rivulet/first order stream,#indicates frozen/ dried lakes