

Supplementary Table S1. Details of the CYGNSS SNR dataset used along with observed flood extent considered in this study.

No	Spatial Region of Interest	Temporal Extent	Observed Flood event duration
1.	CYGNSS Level – 1 BRCS data over Kerala state region, India	Daily L – 1 data from 1 st July 2018 to 30 th August 2018	9 th August 2018 till 23 rd August 2018 ^[1]
2.	CYGNSS Level – 1 BRCS over parts of Bihar, Jharkhand, West Bengal, Assam and Meghalaya state regions, India and parts of Bangladesh	Daily L – 1 data from 1 st July 2017 to 30 th August 2017	16 th August 2017 till 29 th August 2017 ^[2]

1: <https://www.thenewsminute.com/article/8-charts-scale-keralas-largest-flood-century-86948>

2: <https://reliefweb.int/sites/reliefweb.int/files/resources/SouthAsiadisasters%20no.161.pdf>

Supplementary Table S2. Details of the Sentinel – 1 SAR imagery used in this study.

No	Sentinel – 1A SAR Level 1 GRD Imagery Filename	Orbit No	Pass Dir.	Pol	Sensing Date (DD/MM/YY)	Otsu Thresh .values (σ^0)
1.	S1A_IW_GRDH_1SDV_20180821T130602_20180821T130631_023345_028A0A_C728	23345	Asc.	VV	21/08/18	0.037
2.	S1A_IW_GRDH_1SDV_20180821T130631_20180821T130656_023345_028A0A_E124	23345	Asc.	VV	21/08/18	0.128
3.	S1A_IW_GRDH_1SDV_20180821T130656_20180821T130716_023345_028A0A_0AE7	23345	Asc.	VV	21/08/18	0.033
4.	S1A_IW_GRDH_1SDV_20170823T001140_20170823T001205_018043_01E4B1_F51A	18043	Desc.	VV	23/08/17	0.022
5.	S1A_IW_GRDH_1SDV_20170824T114835_20170824T114900_018065_01E54A_4224	18065	Asc.	VV	24/08/17	0.116
6.	S1A_IW_GRDH_1SDV_20170824T235508_20170824T235533_018072_01E586_84D5	18072	Desc.	VV	24/08/17	0.025
7.	S1A_IW_GRDH_1SDV_20170824T235533_20170824T235558_018072_01E586_DA73	18072	Desc.	VV	24/08/17	0.118
8.	S1A_IW_GRDH_1SDV_20170824T235558_20170824T235623_018072_01E586_FF38	18072	Desc.	VV	24/08/17	0.019
9.	S1A_IW_GRDH_1SDV_20170824T235623_20170824T235648_018072_01E586_A241	18072	Desc.	VV	24/08/17	0.213
10.	S1A_IW_GRDH_1SDV_20170827T121152_20170827T121217_018109_01E69C_C2D8	18109	Asc.	VV	27/08/17	0.028
11.	S1A_IW_GRDH_1SDV_20170827T121217_20170827T121242_018109_01E69C_0A81	18109	Asc.	VV	27/08/17	0.024
12.	S1A_IW_GRDH_1SDV_20170827T121242_20170827T121307_018109_01E69C_3B9A	18109	Asc.	VV	27/08/17	0.115
13.	S1A_IW_GRDH_1SDV_20170827T121307_20170827T121332_018109_01E69C_C108	18109	Asc.	VV	27/08/17	0.017
14.	S1A_IW_GRDH_1SDV_20170829T115553_20170829T115618_018138_01E77F_BD36	18138	Asc.	VV	29/08/17	0.113

15.	S1A_IW_GRDH_1SDV_20170829T115618_201708 29T115643_018138_01E77F_620E	18138	Asc.	VV	29/08/17	0.219
16.	S1A_IW_GRDH_1SDV_20170829T115643_201708 29T115708_018138_01E77F_65E5	18138	Asc.	VV	29/07/17	0.014
