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HYDROLOGY & WATER RESOURCES SERVICES DIVISION NATIONAL CENTER FOR HYDROLOGY & METEOROLOGY THIMPHU: BHUTAN



Status and River Level Trends:

Friday, August 02, 2019

Issued at: 10:00 AM

Glacier Lake Outbrust Flood (GLOF) Early Warning System

	Punatshang	g Chhu Sub Basi	in																				
SI Nos.	River Basin Number	Basin Name	Name of River	Station Name	Highest Water Level Recorded	Alert Water Level	Alerm Water Level	Water Level (m) recorded at 9 AM Yesterday		Water Level Rise (+)/Fall (-) in meters during last 24 Hrs ending at 9 AM Today	Downstream Settlement												
1				Luggay Tsho		7.80	10.00	6.68	6.66	-0.02	Thanza,Tenchey,Lhedi and Lunana area and Downstream of Pho Chhu and Puna-												
2			Pho Chhu Chhu	Thorthormi Tsho		7.50	5.00	5.82	5.81	-0.01													
3				Rapstreng Tsho		7.40	5.00	6.32	6.31	-0.01	Wangdue Valley												
4				Bay Tsho		7.40	5.00	6.47	6.51	0.04	,												
5	Basin II	Punatshang Chhu		Thanza		7.70	8.70	NR	NR	#VALUE!													
6	basin in Punatshang Chin	Funacinaria crinu															Tarina Wachey		8.50	10.50	6.92	6.93	0.01
7				Dangsa		5.50	7.00	4.86	4.88	0.02	Khuruthang) Puna-Wangdue Valley and Downstream												
8			Mo Chhu	Taksemakhang		7.50	8.50	6.01	6.04	0.03													
9				Tashithang		9.00	10.50	7.51	7.70	0.19	Gasa, Mo Chhu Valley, Puna-Wangdue Valley and Downstream												
10						Yebesa		5.00	7.00	2.47	2.53	0.06											

A	pproximate Lead	lime for Evacuation	on after the det	ection of flood at Four la	ke Sensor		Approximate Lead Time for Evacuation after the detection of Flood at the Dangsa Sensor						
SI Nos	Name of Place Downstream	Approx. Distance from Sensor (Bay Tsho)	Approx. Distance from Sensor (Rapstreng Tsho)	Approx. Distance from Sensor (Thorthormi Tsho)	Approx. Distance from Sensor (Luggey Tsho)	Approx. Tme available for Evacuation	SI Nos	Name of Place Downstream	Approx. Distance from Sensor (Bay Tsho)	Approx. Time for Flood to reach at the Place	Approx. Tme available for Evacuation		
1	Thanza	1.5 km	2.8 km	3.3 km	6.7 km		1	Wolathang	5.8 km	30 minutes	30 minutes		
2	Tenchey	2.9 km	4.1 km	4.6 km	8.2 km	20-60	2	Samdingkha	12.0 km	55 minutes	55 minutes		
3	Tshojo	8.1 km	10.0 km	10.5 km	13.8 km	minutes	3	Punakha Dzong	20 km	90 minutes	1 hours 30 minutes		
4	Lhedi	16.7 km	17.6 km	18.5 km	21.8 km	1	4	Khuruthang Town	24 km	120 minutes	2 hours		
5	Puna-Wangdue Valley	100 km	100 km	100 km	100 km	5-7 hours	5	Bajo Town	30.5 km	145 minutes	2 hours 25 minutes		
							6	Wangdue Bridge	33 km	150 minutes	2 hours 30 minutes		

NOTE: The above distance were Calculated from basic tools in the Google Earth Map, thus diastance were approximate only.

Glacier Lake Outbrust Flood (GLOF) & Rainstorm Flood Early Warning System.

Chamk	hamkhar Chhu and Mangdue Chhu Sub Basin										
SI Nos.	River Basin Number	Basin Name	Name of River	Station Name	Highest Water Level Recorded (m)	Alert Water Level (m)	Alerm Water Level (m)	Water Level (m) recorded at 9 AM Yesterday		Water Level Rise (+)/Fall (-) in meters during last 24 Hrs ending at 9 AM Today	Downstream Settlement
1			Chamkhar Chhu	Tshampa		5.00	6.50	4.64	4.56	-0.08	
2				Khagthang		5.50	6.00	5.12	5.02	-0.10	Chokortoe Pry School, Kurjey Village, Wangdicholing, Chamkhar Town, Gangrithng Pry School, Gyelkhar Village and Downstream settlement under Zhemgang.
3	Basin III	Manas		Kurjey	5.72	3.30	5.00	2.72	2.65	-0.07	
4			Mangdue Chhu	Jongthang		5.90	7.00	NR	5.31	#VALUE!	Bjizam Community, MHPA Dam, Power House and Downstream settlement of Trongsa
5		wangoue chhu	Bjizam	5.52	4.20	5.50	3.35	3.17	-0.18	and Zhemgang	

	Approximate Lead Time for Evacuation of Chamkhar Chhu Sub Basin						Approximate Lead Time for Evacuation of Mangdue Chhu Sub Basin							
Ap	Approximate Lead Time for Evacuation after the detection of Flood at the Tshampa AWLS						Approximate Lead Time for Evacuation after the detection of Flood at the Jongthang AWLS							
SI Nos	Name of Place Downstream	Approx.Distance from the Tshampa AWLS	Approx. Cumlative Distance from Tshampa AWLS	Elevation	Approx. Lead Time	SI Nos	Name of Place Downstream	Approx.Distance from the Tshampa AWLS	Approx. Cumlative Distance from Tshampa AWLS	Elevation	Approx. Lead Time			
1	Khagthang	20.3 km	20.3 km	3704 m	27 minutes	1	Bjizam	18.5 km	18.5 km	2223 m	34 minutes			
2	Chorkhor Toe PS	4.5 km	24.8 km	2904 m	34 minutes	2	Dam Site	7.8 km	26.3 km	1848 m	50 minutes			
3	Kurjey	12.4 km	37.2 km	2771 m	60 minutes	3	Power Plant	20.4 km	46.7 km	1024 m	88 minutes			
4	Wangdicholling	5.7 km	42.9 km	2600 m	79 minutes									
5	Bumthang	1 km	43.9 km	2562 m	83 minutes									

 6
 Gangrithang PS
 0.3km
 44.2 km
 2552 m
 84 minutes

 7
 Gyelikhar
 1.7 km
 45.9 km
 2538 m
 91 minutes

CI No.	Nos. Station Type	River Basin	Basin Name	Name of River	Station Name	Highest Water Level	Water Level (m) recorded	Water Level(m)	Water Level Rise (+)/Fall (-) in meters during	Weather	
51 1405.		Number	basin warne		Station Name	Recorded (m)	at 9 AM Yesterday	recorded at 9 AM Today	last 24 Hrs ending at 9 AM Today	Condition	Downstream Settlement
1	AWLS				Dodena		NR	NR	#VALUE!	Cloudy	Thimphu Valley and Downstream
2	Principal			Thim Chhu	Lungtenphu	2.82	1.58	1.57	-0.01		minipite valley and bownstream
3	Principal				Damchu	6.00	3.15	3.15	0.00	cloudy	Chukha and Downstream
4	Secondary	Basin I	Wang Chhu	Haa Chhu	Haa	2.60	1.10	1.15	0.05		Haa and Wang Chhu Downstream
5	Principal			Pa Chhu	Bonday		1.64	1.63	-0.01	Cloudy	Downstream of Paro Valley and Wang Chhu Basin
6	Principal			Amo Chhu	Dorokha		3.45	3.35	-0.10	Sunny	Samtse, Phuntsholing and Downstream
7	Secondary			Ano chila	Droyagang	7.07	3.95	3.83	-0.12		Phunsholing and Downstream
8	Secondary			Pho Chhu	Samdingkha	6.10	4.30	4.45	0.15	Partly Cloudy	Puna-Wangdue Valley and Downstream
9	Principal			Mo Chhu	Yebesa	3.94	2.44	2.5	0.06	Sunny	Mo Chhu Valley and Downstream
10	Secondary			ng Punatshang Chhu	Wangdue Bridge		3.45	3.50	0.05		PHPA I, PHPA II and Downstream
11	Principal	Basin II	Punatshang		Wangdue Rapid	7.82	4.00	4.03	0.03	Sunny	PHPA I, PHPA II and Downstream
12	Principal		Chhu		Turitar Sunkosh	6.68	3.95	3.95	0.00	Cloudy	Downstream of Dagana and Lhamoizingkha
13	Secondary				Sunkosh Bridge		3.05	3.05	0.00	Cloudy	Downstream of Dagana and Enamolzingkna
14	Principal				Kerabari	11.90	6.20	6.22	0.02	Cloudy	Lhamoizingkha and Downstream
15	Secondary			Mao Chhu	Sherzhong		4.40	4.35	-0.05	Suuny	Gelelephu Valley and Downstream
16	Principal			Mangdue Chhu Chamkhar Chhu Kuri Chhu	Bjizam	5.35	3.37	3.20	-0.17	Sunny	MHPA Dam, Power House and Downstream of Trongsa & Zhemgang
17	Secondary				Dakpai Chhu	2.26	1.54	1.52	-0.02	Sunny	Downstream of Zhmgang and Panbang
18	Principal				Tingtibi	7.45	4.56	4.6	0.04		Downstream of Zhingang and Panbang
19	Principal				Kurjey	4.00	2.73	2.67	-0.06	Sunny	Chamkhar Valley, Zhemgang and Downstream
20	Principal				Shingkhar (Bemethang)		2.58	2.53	-0.05		Zhemgang and Downstream
21	Principal				Sumpa	7.65	5.22	5.45	0.23	Sunny	Lhuntse Downstream,Kurizampa,KHPA and Downstream along the Kuri Chhu
22	Secondary				Khoma	5.30	2.37	2.60	0.23	,	
23	Secondary				Autsho	8.48	5.23	5.55	0.32	Cloudy and Clear	Kurizampa, KHPA and Downstream along the Kuri Chhu
24	Principal	Basin III	Manas		Kurizampa	18.45	9.70	10.03	0.33		KHPA and Downstream along the Kuri Chhu
25	Principal			Kholong Chhu	Muktirap	6.00	2.90	3.17	0.27	Partly Cloudy	Doksum,Kholong Chhu Hydro Power Project and Downstream of Gongri Chhu
26	Secondary				Doksum		5.43	5.26	-0.17	Sunny	Kholong Chhu Hydro Power Project and Downstream of Gongri Chhu
27	Secondary				Chazam		10.30	11.15	0.85	Cloudy	Downstream Settlement of Kuri-Gongri and Panbang
28	Principal			Drangme Chhu	Ozorong	6.75	3.65	4.25	0.60		Downstream of Kuri-Gongri and Panbang
29	Secondary				Sheri Chhu	2.58	1.84	1.82	-0.02		
30	Principal				Panbang	12.48	7.64	8.02	0.38	Cloudy	Manas and Downstream
31	Principal			Ngara Ama Chhu	Pangzam		6.55	6.75	0.20		Bangtar Settlement and Downstream
32	Principal			Agara Anna Cintu	Bangtar		3.10	3.13	0.03	Cloudy	Downstream of Bangtar Settlement

The Water Level are relative Gauge Hight of the Observation site reference to the Site Specific and doesnot represent the actual water depth. NOTE

ALARM NR Represent that the Data has not been reported or Not Updated

ISSUED BY: FMCR, HWRSD, NCHM