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**Irrigation and Waterways Directorate
Government of West Bengal**

ANNUAL FLOOD REPORT 2020

DIRECTOR

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PREFACE

West Bengal being the lowermost riparian state of Ganga Basin and situated at the foothills of several Himalayan rivers of Brahmaputra Basin, the problem of flood management and drainage is quite acute here. Most of the rivers in the State originate from outside of the State boundary and thus they are either inter State or International category. The State has often witnessed destructive floods, even without any substantial rainfall within the geographical limits of its own. Along-with flood and water logging, various allied problems like bank erosion, embankment breach, drainage congestion, and cyclonic storm has often accentuated the flood disaster. The coastal areas along the Sundarban delta, which happens to be the largest delta of the world, often experience high tidal surges resulting in severe erosion and inundation to the country sides. In a nutshell, West Bengal having about 42.55% of its geographical area flood prone, happens to be one of the prime flood affected States in the country.

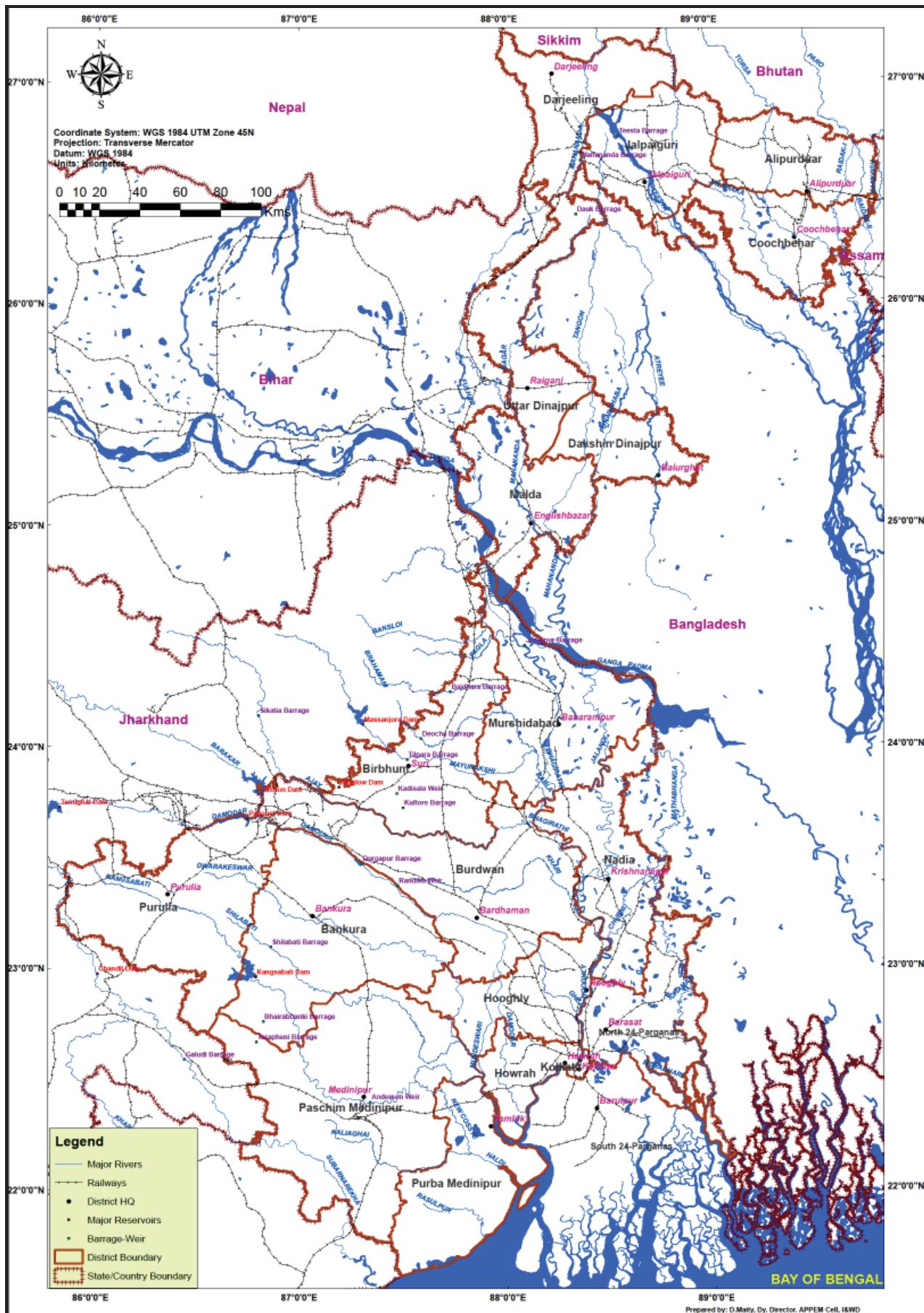
The flood and water related disaster and associated problems in West Bengal has been almost an annual feature. Many parts of the State are victims of onslaught offload of flood waters almost every year resulting severe loss to standing crops, cattle and properties. It has been noticed that the flood fury has increased during the last two decades.

To protect the country-side from flood ingress during peak monsoons and high tide, flood embankments are constructed along the vulnerable river banks. These embankments; constructed in various districts of the State in general and the deltaic Sundarbans in particular, are used as prime communication links, particularly during periods of natural calamity for safe passage of people and relief materials. It virtually serves as vital lifeline to the affected areas during adverse situation. Disruption of such communication links due to failure by way of subsidence and sudden breach during flood creates havoc, bringing the life of affected areas to a grinding halt as the areas become devoid of basic amenities of life.

Factors such as intensity and duration of rainfall, sedimentation of river bed, imprudent reservoir control, tidal lockage, obstruction and encroachment in natural waterways play vital role in the occurrence of flood. Basin-wise study of flood factors and evaluation of flood hazards are indispensable for chalking out future effective plans for flood control and management measures. Accordingly, Irrigation & Waterways Directorate (IWD), at the end of every flood season ritually brings out an Annual Flood Report incorporating the history of rainfall patterns of the monsoon season, district rainfall records, and major river gauge levels across the State, reservoir inflow-outflows and major flood events of the year.

This year overall rainfall of the State is in normal range. The monsoon rainfall in the north is in excess and in the south, it is below nomal. Except some North Bengal rivers where warning signals imposed frequently, stages of other rivers are within the limits. However, before the onset of monsoon, the State has experienced super cyclone '*Amphan*'. Damages has occurred at vulnerable spots of the flood embankments, river and sea protective works mainly in the coastal districts of West Bengal. The restoration works are undertaken by the Department both for Amphan and normal flood season.

RIVER NETWORK IN WEST BENGAL



1. INTRODUCTION

Geographically, the State of West Bengal is capped by the Himalayan snow-peaks in the North and frothy sea of Bay of Bengal on the South. The terrain is a combination of land varying from hilly regions in the north and partly high plateau in the south-west to the Gangetic alluvial plains in the rest areas. The State is beset with extensive network of rivers, their tributaries, rivulets, jhoras, irrigation canals, wetlands, ponds, beels and low-lying pockets of water bodies. With the Tropic of Cancer passing across it, the State is situated in between 21°31' & 27°13'14" North Latitudes and 85°45'20" & 89°53' East Longitudes.

Salient features of West Bengal are given below in seriatim to give an outline of the flood situation of the State.

Salient Features:

Geographical area of State	:	88,752 sq. km.
Population (as per 2011 census)	:	9.13 crores
No. of Districts	:	23
Total no. of blocks	:	341
No. of flood susceptible districts	:	19
No. of Vulnerable blocks	:	198 (in Flood & Tidal inundation)
River basins (with CWC code)	:	Ganga (2A), Brahmaputra (2B), and Subarnarekha (6).
Number of River Sub-basins	:	39
Total Catchment area	:	1,80,628 sq. km.
Catchment area outside of the State	:	91,876 sq. km. (outside of West Bengal but within India: 57624 sq.km. & outside of country: 34,252 sq.km.)
Annual average rainfall	:	1,826 mm (Northern part: 2750 mm, Alluvial & Deltaic plain: 1650 mm, Western plateau: 1450 mm)
Total flood prone area	:	37,760 sq. km.
Area already protected	:	35, 380 sq. km.
Length of Embankment	:	10,584 km.
Length of Drainage Channel	:	8,409 km.
Length of erosion protection work other than embankments	:	2,389 km.
Length of sea wall	:	67 km.
Total number of Outfall sluices	:	2,781
Number of Pumping stations	:	20
Surface water potential	:	136.9 BCM

2. RIVER SYSTEMS AND FLOOD PROBLEMS

West Bengal, a part of Bengal Delta, has a long-recorded history of flood. At present **42.55%** of total area of the State is susceptible to flood. Reason is the landmass of the State was formed by the Ganga-Padma system of rivers through the delta building process of which flood being the main carrier of sediments, the bulk of fluvial deposit, in huge volumes. The highest affected area as recorded in 1978 is about 30,607 sq. km and in 2000, it is about 23,971 sq. km.

Most of the rivers in the State are either Inter-State or International in character. The flood problems of the State are of different nature at different regions which are describing below.

2.1. In North Bengal:

In North Bengal, rivers viz. **Teesta, Torsa, Jaldhaka, Raidak** and **Sankosh** after originating in the neighbouring countries of Bhutan and Tibet and the State of Sikkim, flow downwards through the districts of Darjeeling, Kalimpong, Jalpaiguri, Alipurduar and Coochbehar to meet the River Brahmaputra at different locations in Bangladesh, another neighbouring country. The combined catchment of all this system of rivers upto the international border is 37,545 sq. km.

The rivers of the districts of Uttar Dinajpur and Dakshin Dinajpur namely, **Tangon, Atreyee** and **Punarbhava** after originating at Bangladesh pass through these districts and either directly or indirectly contribute catchment discharges into the river **Ganga-Padma** in Bangladesh after the Farakka Barrage. The combined catchment area of the river system up to the international border is 8,873 sq. km.

The southern part of district Malda through which the River **Ganga** flows receives its flood water from about 11 States and is battered by the run-off flow generated from these vast areas. Ultimately the river flows down the Farakka Barrage to Bangladesh. The western side of the Malda district receives floodwater mostly from neighbouring country of Nepal and State of Bihar through a network of rivers called **Mahananda** and **Fulahar**. Fulahar, after flowing straight south, joins with Ganga upstream of Farakka barrage while Mahananda turns towards south-east and after bifurcating Malda, outfalls into river Ganga-Padma at downstream of Farakka Barrage in Bangladesh. The combined catchment of Mahananda-Fulahar system is 19,342 sq. km.

Major contributing factors to flood in North Bengal regions are the run-off because of heavy local rainfall, discharge of upper basin areas and also outfall condition in the neighbouring countries. The Mahananda and most of the rivers of Uttar and Dakshin Dinajpur districts get stagnated when the Ganga upstream and downstream of Farakka Barrage rules high thereby not allowing drainage of flood discharge during that period.

2.2. In South Bengal:

There are certain distinctive features of drainage condition which give rise to flood situation in south Bengal. The flood in this zone becomes voluminous because of the shape of the catchment area, its steep slope starting from a high-level plateau area and sloping sharply down to a flat terrain near the outfall of limited capacity. This feature is again adversely affected by tidal conditions as is generally noticed in the month of September, the likely month

of occurrence of flood.

Basin-wise there are quite a number of river systems on the right bank of the river Bhagirathi-Hooghly like **Pagla-Bansloji**, **Dwarka-Brahmani**, **Mayurakshi-Babla** and **Ajoy**. These rivers together drain out flood water from an area of 18,177 sq. km, spread over the State of Jharkhand (the Chotanagpur Plateau) and the districts of Birbhum, western part of Murshidabad, West and East Burdwan, and finally outfall into river **Bhagirathi**. Carrying capacity of the river Bhagirathi is only 25% of the combined peak flood discharges generated from these basins because of simultaneous heavy rainfall, as it occurred during the flood of September 2000. In this vast tract of land there is one major reservoir, that is, *Massanjore Dam* over river **Mayurakshi** which interferes the flood discharge of only 11% of aforesaid combined catchments.

On the left bank of the Bhagirathi river system the **Bhairab-Jalangi-Sealmari** group of rivers originate from Ganga-Padma at Akherigunj in Murshidabad district and meet the Bhagirathi at Swarupgunj in Nadia District. This system of rivers between them drains a total area of 2,537 sq. km. of Murshidabad and Nadia districts. Generally, this area suffers from flood because of three reasons – (i) high intensity rainfall in the basin area itself (ii) inflow of flood water from Ganga-Padma at its high spate and (iii) drainage congestion at its outfall because of high stage of river Bhagirathi during high tide.

In the **Damodar-Barakar** river system, the rivers originate at Chotanagpur plateau of Jharkhand and flows down the plains of West Bengal to outfall into the **Rupnarayan-Hooghly** system through two channels namely **Mundeswari** and **Amta Channel**. The catchment area upto **Durgapur Barrage** is 18,026 sq. km. as against total catchment of 24,341 sq. km. In this catchment area there are only 4 (four) reservoirs having a storage capacity of 1.21 BCM. The original concept of flood storage was to have an area reserved for storing a volume of 3.58 BCM. Thus, with this limited flood storage capacity the storage dams at present can modify only the peak flood discharge. Any discharge above 70,000 cusecs downstream of Durgapur barrage may cause flood depending on the outfall condition of the Mundeswari at Harinkholia.

The **Shilabati-Darakeswar** and **Kangsabati-Kaliaghai** river systems which have combined catchment areas of 16,938 sq. km spread out in the districts of Purulia, Bankura, Jhargram, Paschim and Purba Medinipur outfall into river **Rupnarayan** and **Haldi** respectively which finally meet river Hooghly. The **Kangsabati-Kumari dam** at Mukutmanipur, Bankura intercepts flood discharge of only 22% of the aforesaid combined catchment area. In this basin spillway discharge from Kangsabati dam above 50,000 cusecs may cause flood at lower reaches downstream of **Mohanpur Anicut** near Midnapore Town depending on tidal condition of the outfall and rainfall in the uncontrolled catchment downstream of Kangsabati dam.

The **Mathabhanga-Churni-Ichamati** system of rivers originate at the Mathabhanga off-taking from Ganga-Padma downstream of Farakka Barrage in Bangladesh and on reaching West Bengal at Majdia in Nadia district, bifurcates in two branches (i) the Churni flowing on South-Westerly direction meeting the Bhagirathi at Ranaghat and (ii) the other branch namely, the Ichamati flowing on South-Easterly direction to meet Bay of Bengal through the creek of Raimangal. The main flood situation in this area arises because of inflow from Ganga-Padma (when it rules high), rainfall in the own catchment area and

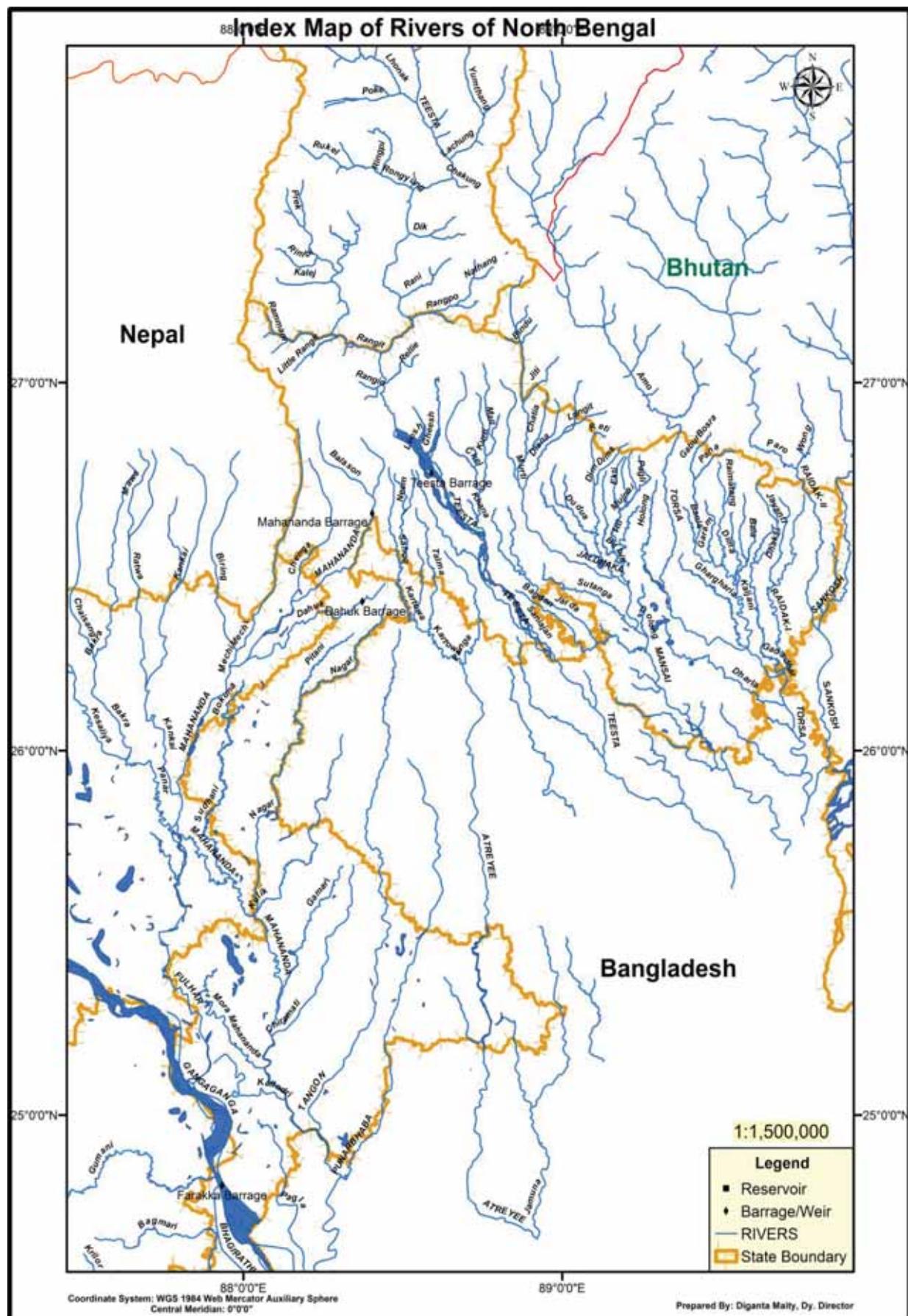
also tide lockage. In 2000 flood, a very unusual situation arose where the Bhagirathi transferred a large volume of its floodwater to this basin area by breaching its embankments at several places.

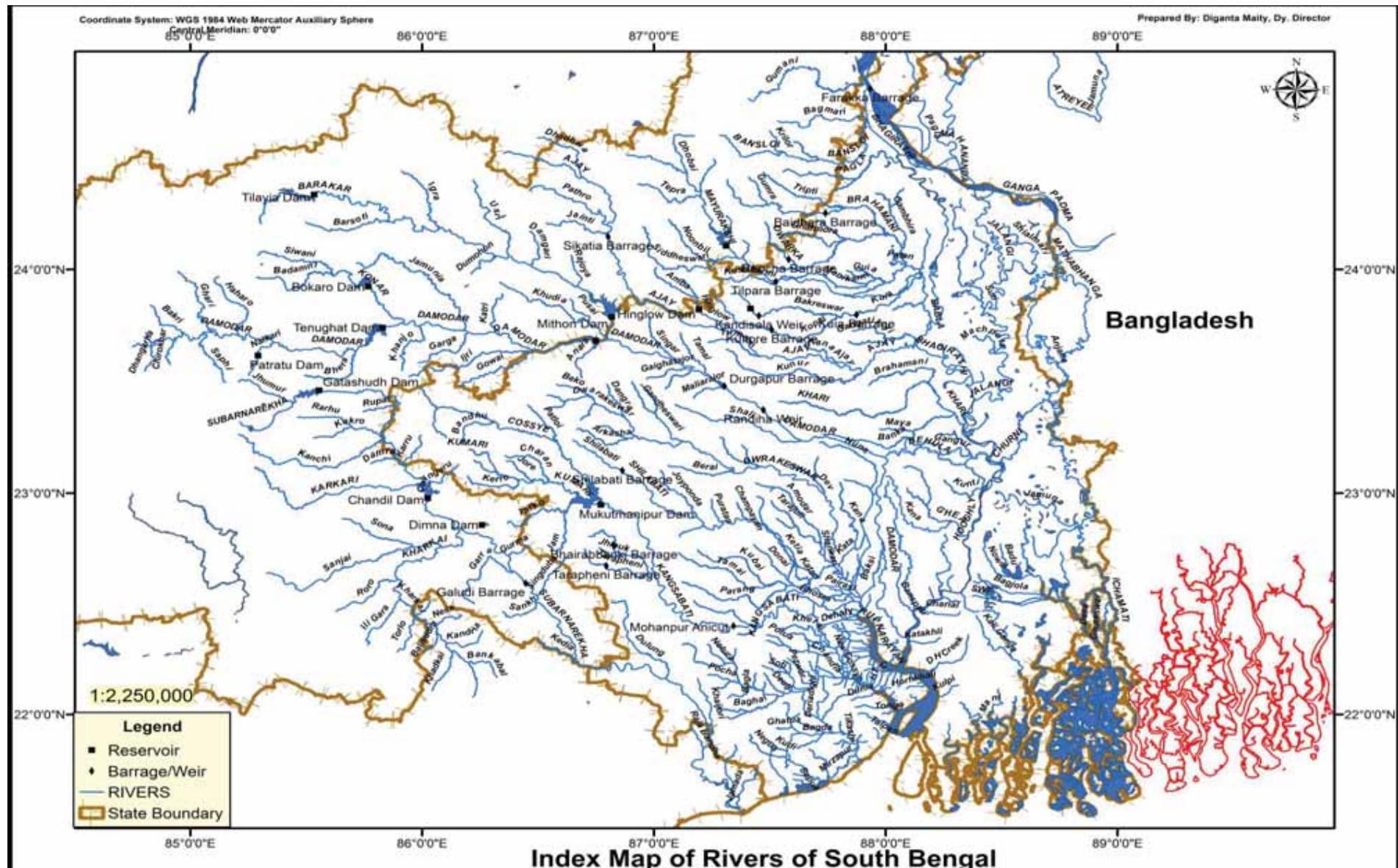
Index map of river system in North Bengal and South Bengal is presented below. The inventories of rivers, tributaries, branch channels within the sub basins have been presented in **Annexure I**.

2.3. Historical record of flood:

Historical record of flood available in West Bengal from 1960 till present year is given below:

HISTORICAL RECORD OF FLOOD IN WEST BENGAL		
Flood affected Area (in Sq. Km.)	Years during which Flood occurred (1960 to 2020)	Total Number of Years
Below 500	1985, 1989, 1992, 1994, 1997, 2001, 2002, 2005, 2006, 2010, 2012, 2013, 2014, 2016, 2018 & 2019	16
Between 500 – 2,000	1962, 1963, 1964, 1965, 1966, 1972, 1975, 1996, 2003, 2004, 2011, 2015 & 2020	13
2,000 – 5,000	1960, 1961, 1967, 1969, 1970, 1974, 1976, 1980, 1981, 1982, 1998, 2009 & 2017	13
5,000 – 10,000	1973, 1977, 1993, 1995, 2007 & 2008	6
10,000 – 15,000	1968, 1979, 1983, 1990 & 1999	5
15,000 – 20,000	1971, 1986, 1987 & 1988	4
Above 20,000	1978, 1984, 1991 & 2000	4





3. DETAILS OF RIVER BASINS AND SUB-BASINS

The State can be demarcated into three distinct drainage basins namely Ganga (CWC basin code no. 2A), Brahmaputra (CWC basin code no. 2B) and Subarnarekha (CWC basin code no. 6) basins respectively. Ganga basin has been further divided into two parts namely Bhagirathi lower & others and Damodar. These three main river basins can be divided into sub-basins having individual catchment of their own. Index maps of different river sub-basins and basins are presented in **Annexure-II**.

3.1. BRAHMAPUTRA BASIN

The rainfall in the northern region of the State is generally high. The ground slope is steep, particularly in the Sub-Himalayan regions of the northern districts. Most of these northern districts belong to Brahmaputra basin. This system consists of a total area of 10,584 sq. km., nearly 12% of the geographical area of the State. This basin area is interspersed with a large number of drainage channels, which join the main drainage arteries of the regions like the rivers Teesta, Torsa, Raidak, Jaldhaka etc. All these rivers originate from the Himalayas in neighbouring countries Bhutan, Sikkim and Tibet, and flow across the Terai region and reach the plains of West Bengal and then flow to Bangladesh joining ultimately the Brahmaputra in Bangladesh. The catchment area distribution of this basin and sub-basins bounded within different neighbouring States and countries has been presented in the following table.

Distribution of Catchment Area of River Basins & Sub-Basins of West Bengal									
CWC Basin Code	River Basin	Sub-Basins	CATCHMENT AREA (Sq. Km.)						TOTAL (Sq. Km)
			Assam	Sikkim	West Bengal	Bangla-desh	Bhutan	Tibet	
2B	BRAHMAPUTRA								
	Brahma putra Lower	Jaldhaka		76	3916	351	959		5302
		Raidak			246		4590	16	4852
		Sankosh	175		162		9734	75	10146
		Teesta		7000	3012	12		29	10053
		Torsa			3248		2363	1581	7192
		Sub-Total	175	7076	10584	363	17646	1701	37545

3.1.1. Sankosh Sub-basin

The river Sankosh with its origin in Bhutan is the eastern most river of Brahmaputra river basin. It serves as the boundary between the two states West Bengal and Assam. It joins with Raidak-II and finally falls into Brahmaputra in Bangladesh by name Gangadhar. The length of Sankosh in West Bengal is 24 km. The total catchment area of this river sub-basin is 10,146 sq.km.

3.1.2. Raidak Sub-basin

It originates in Mt. Akungphu at an altitude of 6,400 m. in Bhutan. The river Raidak then bifurcates into two channels namely Raidak-I and Raidak-II at Bhutanghat, close to Indo-Bangladesh border. Raidak-I joins the united stream of Torsa and Kaljani, while Raidak-II is joined by Sankosh and finally outfalls into Brahmaputra in Bangladesh by the name Gangadhar. The length of Raidak-II is around 50 km in West Bengal. The total catchment area of Raidak-II river sub-basin is 4,852 sq.km.

3.1.3. Torsa Sub-basin

The river Torsa originates in Chumbi Valley of southern Tibet at an altitude of 7,065 m. It flows through Tibet, Bhutan, West Bengal and Bangladesh. Below Hasimara Bridge on NH-31, it bifurcates into two channels namely Sil-Torsa and Char-Torsa. They reunite at PatlaKhowa forest. The river passes by the Coochbehar town and is joined by river Kaljani and Raidak-I. The combined flows outfalls into Brahmaputra near Nageswari at Rangpur in Bangladesh. The total length of this river is 222 km out of which 74 km is situated within West Bengal. The total catchment area of this river sub-basin is 7,192 sq.km.

3.1.4. Jaldhaka Sub-basin

The river Jaldhaka has its origin at Bitang Lake in Sikkim at an altitude of 4,400 m. It flows through Sikkim, Bhutan, West Bengal and Bangladesh. After the river is joined by a number of streams and tributaries; both in mountainous and sub-mountainous regions, it finally flows into river Dharala and the combined system, by the name Dharala ultimately outfalls into Brahmaputra in Bangladesh. The total length of this river is 192 km out of which 122 km is situated within West Bengal. The total catchment area of this river Sub-basin is 5,302 sq.km.

3.1.5. Teesta Sub-basin

Teesta, the mighty river of North Bengal originates in the glaciers of North Sikkim at an altitude of 6,400 m and is formed by the union of two streams viz. Lachen and Lachung at Chungthung in Sikkim. It enters West Bengal at Rangpo and upto Mechi, it forms the boundary between West Bengal and Sikkim. Two of its tributaries, Great-Rangeet and Rammam also serve as the natural boundary between the two States. The river finally outfalls into Brahmaputra in Rangpur district of Bangladesh. The total length of this river is 309 km. out of which 103 km. is situated within Sikkim and 121 km. in West Bengal. The total catchment area of this river Sub-basin is 10,053 sq. km. Under '**Teesta Barrage Project**', a barrage has been constructed at Gazoldoba under Jalpaiguri district.

3.2. GANGA BASIN

The two holy rivers - Bhagirathi and Alakananda originating from the glaciers of the Himalayas at an altitude of 7,000 m join at Devprayag and the combined stream is known as the Ganga. It emerges into the plains at Rishikesh in Uttarakhand. After flowing exclusively through Uttarakhand and Uttar Pradesh, it receives the flow of Yamuna, one of its major tributaries near

Allahabad. The other major tributaries of Ganga are Ton, Gomti, Ghaghara, Son, Gandak, Kosi and Fulahar. The Ganga forms the boundary between Uttar Pradesh and Bihar for a length of about 110 km and the river then enters Bihar and flows more or less through the middle of the state. After its confluence with the Kosi, the Ganga continues its eastward flows in Bihar for about 40 km.

At Bhagalpur of Bihar, the river begins to flow south-southeast and as it enters West Bengal, the river swings round the Rajmahal hill range. It begins its attrition with the branching away of its first distributary, the Bhagirathi-Hooghly, which goes on to become the Hooghly River after meeting with Jalangi near Nabadwip and ultimately outfalls into the Bay of Bengal near Sagar Island. Just before the border with Bangladesh, the Farakka Barrage controls the flow of the Ganges, diverting some of the water into a feeder canal linked to the Hooghly for keeping it relatively silt-free.

The North-Central, South-Central, Western, Southwestern and Southern parts of West Bengal constitute the Ganga Basin. This basin is largely divided into two major sub-basins namely Bhagirathi lower and Damodar. The total length of the river Ganga from its point of origin to the point where it falls into sea is about 2,575 km. (measured along Bhagirathi and the Hooghly) of which 1,450 km. lies in Uttarakhand and Uttar Pradesh, 110 km along Uttar Pradesh and Bihar border, 445 km. in Bihar and 570 km. in West Bengal.

The Ganga system comprises a total area of 74,575 sq. km. within the state of West Bengal. The catchment area distribution of this basin and sub-basins bounded within different neighbouring states and countries has been presented in the following table.

Distribution of Catchment Area of River Basins & Sub-Basins of West Bengal									
CWC Basin Code	River Basin	Sub-Basins	CATCHMENT AREA (Sq. Km)						TOTAL (Sq. Km)
			Bihar	Jharkhand	Orissa	West Bengal	Bangladesh	Nepal	
GANGA									
2A	Bhagirathi and Others (Ganga Lower)	Atreyee				1627	2262		3889
		Fulahar	2940			325		2684	5949
		Mahananda	2739			6040	1319	3295	13393
		Punarbhava				1125	1809		2934
		Tangon				1244	806		2050
		Ajay	386	3204		2503			6093
		Amra Channel Kana Damodar				1490			1490
		Bansloi		1794		119			1913
		Behula				549			549
		Bhagirathi-Hooghly		1292		4160			5452
		Bidyadhar				2014			2014
		Brahmani		985		154			1139
		Churni				975	1304		2279
		Dwarka		329		2649			2978
		Ganga-Padma				1673			1673
		Gheea				1167			1167
		Ichamati				2313	1063		3376

Distribution of Catchment Area of River Basins & Sub-Basins of West Bengal									
CWC Basin Code	River Basin	Sub-Basins	CATCHMENT AREA (Sq. Km)					TOTAL (Sq. Km)	
			Bihar	Jharkhand	Orissa	West Bengal	Bangladesh		
		Jalangi				2537		2537	
		Khari				2268		2268	
		Mayurakshi	2949			2529		5478	
		Pagla	239			337		576	
		Sundarban area				10209		10209	
	Damodar	Damodar	17087			4325		21412	
		Dwarakeswar				4292		4292	
		Haldi				614		614	
		Kaliaghai				1913		1913	
		Kangsabati	321			6324		6645	
		Mundeswari				1439		1439	
		Pichabani		17		791		808	
		Rasulpur				1556		1556	
		Rupnarayan				1226		1226	
		Shilabati				4088		4088	
		Sub-Total	6065	28200	17	74575	8563	5979	123399

3.2.1. Mahananda-Fulhar Sub-basin

The river Mahananda originates from Ghoom near Darjeeling town in the district of Darjeeling. It is bounded on the north by the Himalayas, in the east by the ridges separating it from Teesta river system, the river Ganga on the South and the Kosi river system in the east. The river bifurcates into two channels at Barsoi in Bihar. Out of the two branches one flows through Bihar by the name Fulahar and the other flows through West Bengal as Mahananda. The river Mahananda carrying the flow of four tributaries namely, Nagar, Kalindri, Tangon and Punarbhaba, drains into the river Ganga from the Northwestern side at Godogarighat just downstream of the point where Ganga leaves the boundary of West Bengal. The combined catchment area of these two Sub-basins is 19,342 sq. km. Under '**Teesta Barrage Project**', a barrage has been constructed over **Mahananda** near Siliguri and another pick-up barrage has been constructed over river **Dauk** near Chopra of North Dinajpur district, which is a tributary of Mahananda.

3.2.2. Atreyee Sub-basin

Some rivers like Sahu, Neem, Talma, Chaoai, Panga originating from the high lands in districts of Jalpaiguri and meet together to form Kartowa which then enters into Bangladesh by the name Atreyee. The river Atreyee then bifurcates into two channels namely Dheepa and Atreyee. The Western Channel named Atreyee re-enters into West Bengal in South Dinajpur district covering a length of 40 km in the State. It again enters into Bangladesh and ultimately outfalls into river Jamuna after passing through Chalanbeel. The total catchment area of this river sub-basin is 3,889 sq.km at the point of leaving West Bengal boundary.

3.2.3. Punarbhaba Sub-basin

The river Dheepa after emerging out from Atreyee in Bangladesh, has taken a South - Western course to enter into South Dinajpur district assuming the name Punarbhaba. Covering a length of about 40 km. in the district, it touches the eastern boundary of Malda district and finally enters into Bangladesh. Further down, Punarbhaba meets the river Mahananda in Bangladesh. The catchment area of this sub-basin is 2,934 sq. km.

3.2.4. Nagar-Kulik, Gamari-Chiramati, Tangon Sub-basins

All these rivers flow through the districts Malda and North Dinajpur and outfall into the river Mahananda. In course of their flow, somewhere they form the boundary either between West Bengal and Bihar or between West Bengal and Bangladesh. Nagar, originating in Bangladesh flows along the boundary of West Bengal and taking a Southeastern course, receives a spill channel of Mahananda and is joined by Kulick, which has also its origin in Bangladesh.

Gamari and Chiramati (or Srimati) are two small rivers that flow through North Dinajpur district before they are united. This combined streams finally outfalls into the river Mahananda. Tangon is a tributary of river Mahananda. It rises in Bangladesh. It flows through the district of North Dinajpur and Malda and meets Mahananda on the boundary of Malda and Bangladesh. The catchment area of Tangon is 2,050 sq. km.

3.2.5. Bhagirathi-Hooghly Sub-basin

Farakka Barrage diverts water from river Ganga into Bhagirathi through a channel known as **Feeder canal** near Tildanga town of Murshidabad district in order to ensure minimum flow in Bhagirathi especially during dry season. This canal flowing parallel to Ganga passes Dhulan and ends just above Jangipur where Bhagirathi takes its own course. Two right bank tributaries namely Pagla and Bansloj outfall into the Feeder canal before it turns into actual Bhagirathi. It has been renamed as river Hooghly as it passes on the eastern side of Hooghly district until it outfalls into the Bay of Bengal near Sagar island.

During its entire course from origin to outfall, Bhagirathi has formed boundaries between the districts of Purba Bardhaman & Nadia, Hooghly & North 24-Parganas, Howrah & Kolkata, Purba Medinipur & South 24-Parganas. River Ajay, Mayurakshi, Damodar (Amta Channel), Rupnarayan and Haldi are the major tributaries on its right bank while river Jalangi and Churni are the major tributaries on its left bank. Some other minor tributaries on its right bank are Khari, Behula, Ghea and Rasulpur. Moreover, there are so many small drainage channels and khals which directly outfall into this river from its both banks thus forming local catchment areas of 5,452 sq.km. The Tolly's Nullah or the Adi-Ganga, as it is sometimes called is a small but important tidal creek draining into the river Hooghly from the left near the city of Kolkata.

One important factor that affects the drainage potential of river Hooghly is the effect of tides. The tide runs rapidly on Hooghly and produces a remarkable example of the fluvial phenomenon known as a '*tidal bore*'. This consists of the head-wave of the advancing tide,

hemmed in where the estuary narrows suddenly into the river, and often exceeds 2.1 m. in height. The difference from the lowest point of low water in the dry season to the highest point of high water in the rainy season is reported to be more than 6 m. It has been observed that the incident of flood devastation in the districts of Purba & Paschim Medinipur, Howrah and Hooghly occur mostly when high flood discharges from Jharkhand districts along-with those from Bankura, Birbhum, Paschim Bardhaman, Purba Bardhaman and Purulia districts of West Bengal synchronizes with high tides in river Hooghly specially during the month of August and September.

3.2.6. Jalangi-Bhairab Sub-basin

The river Jalangi originates from the right bank of the river Padma in Murshidabad district, 165 km. downstream of Farakka. Jalangi is dead for all purposes except during the periods of heavy rain, when it receives water from Padma. The river ends its journey by finally outfalling into the river Bhagirathi near Nabadwip town of Nadia district. The major tributary of Jalangi is river Bhairab that starts its journey from the river Ganga near Lalbag of Murshidabad district. It is now almost a dead channel but during rainy season, it receives water from Padma. Catchment area of Jalangi Sub-basin is 2,537 sq.km.

3.2.7. Mathabhanga-Churni Sub-basin

River Mathabhanga originates from the right bank of the Padma, at Munshiganjin Kushtia district of Bangladesh. It bifurcates near Majdia of Nadia in India, creating two channels. The western course, Churni runs a few km. through Nadia in a south-west direction to meet Bhagirathi and the other course Ichamati, after traversing a length of 20 km in India, enters into Bangladesh near Mubarakpur. The length of Churni is almost 56 km. Catchment area of Mathabhanga-Churni Sub-basin is 2,279 sq.km.

3.2.8. Ichamati- Bidyadhari Sub-basins

After entering into Bangladesh near Mubarakpur, river Ichamati flows for 35 km in Bangladesh and again re-enters into India at Duttaphulia of Nadia. It forms the international border between India and Bangladesh for 21 km. and finally outfalls into river Kalindi of Sundarban area. The length of Ichamati is 208 km. with the catchment area of 2,313 sq. km. within West Bengal and 1,063 sq. km. within Bangladesh. Bidyadhari originates near Haringhata in Nadia district and then flows through Deganga, Habra and Barasat areas of North 24 Parganas before joining the Raimangal River in the Sundarbans. It has been the major drainage system of North 24-Parganas and Kolkata having catchment area of 2,014 sq. km.

3.2.9. Pagla-Bansloi Sub-basins

These rivers originate from the Rajmahal hills in the Sahebganj district of Jharkhand. Flowing eastern across Birbhum district, they entered Murshidabad district as the tributaries of the river Bhagirathi. The combined catchment area of these sub-basins is 2,489 sq. km.

3.2.10. Brahamani-Dwarka Sub-basin

Dwaraka originating in Dumka district of Jharkhand, flows through Birbhum and Murshidabad districts where it joins with Mayurakshi to form Babla which finally outfalls into the river Bhagirathi. Brahamani is the main tributary of Dwarka. It also originates in Dumka district of Jharkhand and flows through Birbhum and Murshidabad districts to meet with Dwarka. There are Baidhara and Deocha barrages across the river Brahamani and Dwarka respectively under the '**Mayurakshi Reservoir Project**'. The total catchment area of this sub-basin is 4,117 sq. km.

3.2.11. Mayurakshi-Babla Sub-basin

River Mayurakshi (or Mor), the major river in Birbhum district, has a long history of devastating floods. It has its source on Trikut hill, about 16 km from Deoghar in Jharkhand state. Several spill channels - the Manikarnika, Kana Mor etc. take off from the Mayurakshi in its lower reaches. All these rivers including river Dwarka flow into the lower pocket of HijalBeel in the district of Murshidabad. The combined flow when starts journey from the beel named as river Babla that finally drains into the river Bhagirathi. The ruling level of Bhagirathi considerably influences the drainage and flood level in the HijalBeel.

Massanjore dam and **Tilpara barrage** have been constructed across this river as a part of 'Mayurakshi Reservoir Project', which is the first major irrigation project in West Bengal after independence. Other important structures of this project situated in Birbhum are Kopai barrage on river Kopai and Kandisala weir over river Bakreswar. The combined flows of Kopai and Bakreswar are called river Kuia which outfalls into Mayurakhshi near Kandi of Murshidabad. Mayurakshi is about 250 km long out of which nearly 100 km passes through West Bengal. The total catchment area of this sub-basin is 5,478 sq.km. River Siddheswari and NoonBeel are two major tributaries of Mayurakshi outfalling into it at 8 km downstream of Massanjore dam and largely contribute the high volume of uncontrolled flood discharge during monsoon.

3.2.12. Ajay Sub-basin

River Ajay originates on a small hill about 300 m high, southwest of Munger in Bihar. It then flows through Jharkhand and enters West Bengal at Simjuri, near Chittaranjan. It forms the border between Birbhum and old Burdwan districts and finally joins the Bhagirathi River near Katwa town of Purba Bardhaman. Total length of the Ajay is 288 km. out of which 152 km. lays in West Bengal. The important tributaries of Ajay are Pathro and Jayanti in Jharkhand, Hinglow in Birbhum and Kunur in Purba Bardhaman district of West Bengal.

There is a barrage across river Ajay constructed by Govt. of Jharkhand at Sikatia. The floods of this river are flashy and of short duration. There are some pockets in the Ajay-Kunur catchment, which suffer from frequent inundation. Large areas of Purba Bardhaman, Birbhum and Murshidabad districts experience inundation due to drainage congestion whenever flood of the Ajay coincides with those of the Mayurakshi and Dwarka. A dam has been constructed over the

tributary Hinglow for the purpose of irrigation in some parts of Birbhum district. The total catchment area of this Sub-basin is 6,093 sq.km.

3.2.13. Khari-Behula-Ghea Sub-basins

Khari river a minor right bank tributary of river Bhagirathi originates from the swampy field of Kanksa-Panagarh region of Purba Bardhaman district and flows mainly eastward and later south-eastward to outfall into river Bhagirathi upstream of Kalna town. Its main tributary is Banka river, which acts as a spill channel of river Damodar, and after flowing almost parallel to Khari, it meets with Khari just before its outfall into Bhagirathi. The catchment area of this sub-basin is 2,268 sq. km.

Behula, also a spill channel of river Damodar originates near Palla village of Purba Bardhaman district and after flowing eastward it outfalls into river Bhagirathi upstream of Balagarh town of Hooghly district. Its main tributary is Gangur river. The catchment area of this sub-basin is 549 sq. km.

Ghea is another spill channel of river Damodar, originating in the Burdwan district and after flowing southward and south-eastward through Hooghly district it outfalls into Hooghly river near Champdani town. The main tributaries of this river are Kana and Kunti having a catchment area of 1,167 sq. km.

3.2.14. Damodar-Mundeswari Sub-basins

River Damodar originating from Palamu hills in Jharkhand and flowing through a length of 541 km between several districts of Jharkhand and West Bengal bifurcates into two channels at Beguahana of Purba Bardhaman district near Jamalpur. One channel carrying dominant flood discharge has been named as river Mundeswari that drains into Rupnarayan at Bakshi of Howrah district. The other channel after passing through Hooghly and Howrah districts as Amta channel carries its discharge and outfalls into the river Hooghly through an outfall sluice near Uluberia.

The river causes floods in its lower reaches in the districts of Purba Bardhaman, Hooghly and Howrah, mainly on the right bank of the river below Beguahana. Earlier known as the '*Sorrow of Bengal*' because of its ravaging floods in the plains of West Bengal, the Damodar and its tributaries have been somewhat tamed with the construction of four dams (Maithon, Panchet, Konar and Tilayia) under the control of '**Damodar Valley Corporation (DVC)**'. There is another dam at Tenughat across Damodar under the direct control of Government of Jharkhand and in the lower catchment; there are one barrage at **Durgapur** and one weir at **Randiha** under the direct control of Irrigation & Waterways Department, Government of West Bengal.

River Barakar and Bokaro are two major tributaries of Damodar in Jharkhand which meet Damodar from its left bank whereas river Shali in Bankura district of West Bengal is other major tributary situated on its right bank. Harinkhola, Short-Cut channel, Kana Dwarakeswar, Hurhura khal are other important drainage arteries of this catchment which play important role in draining out flood discharge into river Rupnarayan, having tidal influence. The total catchment area of Damodar sub-basin

in Jharkhand is 17,087 sq.km and in West Bengal is 4,325 sq. km. upto Beguahana point. The local catchment area of Mundeswari sub-basin is 1,439 sq.km and that of Amta Channel-Kana Damodar sub-basin is 1,490 sq.km.

3.2.15. Dwarakeswar Sub-basin

Darakeswar river (also known as Dhalkishore) is a major river in the western part of West Bengal. It originates from Tilboni hill of Chhotanagpur Plateau in Purulia district and enters Bankura district near Chatna. It mainly flows southeastward and after entering into Hooghly district it turns south near Arambag town. Its main tributary Gandheswari rising from Bankura district meets Darakeswar near Bankura town. After receiving contributions from other minor tributaries like Arkasha, Berai, and Shankari etc. Darakeswar finally joins with Shilabati at Bandar near Ghatal town of Paschim Medinipur district to form river Rupnarayan. There is proposal of "*Darakeswar-Gandheswari Reservoir Project*" within this sub-basin. Catchment area of this sub-basin is 4,292 sq. km.

3.2.16. Silabati Sub-basin

Like Darakeswar, river Silabati (also known as Shilai) emerging from hilly terrain of Chhota Nagpur Plateau in the Purulia district, traverses south-eastward through the districts of Bankura and Paschim Medinipur to meet with Darakeswar to form Rupnarayan River. River Joyponda, Ketia, Donai, Kubai and Parang are major tributaries of Shilabati. There is a small pickup barrage constructed across the river at Kadamdeuli in Bankura district as a part of 'Kangsabati Reservoir Project'. The catchment area of this sub-basin is 4,088 sq. km.

3.2.17. Kangsabati Sub-basin

The river Kangsabati (also variously known as the Kasai and Cossye) originating from Chhota Nagpur Plateau in the Purulia district and flowing south-eastward, joins with its main tributary Kumari river at Mukutmanipur of Bankura district where a reservoir popularly known as Mukutmanipur dam has been constructed under the '***Kangsabati Reservoir Project***' for the purpose of both irrigation and flood control. An Anicut structure built on this river near **Midnapore** town in 1872 was also added to the operations of the project. Further down, after entering into the district of Paschim Medinipur it joins with combined streams of Bhairab Banki and Tarafeni rivers. Both the rivers have barrages over them under the Project. After travelling further east in a tortuous course, it bifurcates into two rivers at Kapastikri of Paschim Medinipur.

Northern branch, known as Old Cossye after flowing through certain distance, further bifurcates into two courses at Daspur of Paschim Medinipur. One course, named as Palaspai khal flow further east to outfall into the Rupnarayan and the main course, known as Durbachati flows southeasterly along the border of both Medinipur districts to outfall into river Rupnarayan. Old Cossye is also connected with river Silabati through a small channel known as Kanki khal.

The southern course, known as New Cossye, flows further southeasterly direction to meet with river Kaliaghai at Dheubhangal of

Purba Medinipur district and forms river Haldi that flows eastwardly into the river Hooghly at Haldia. Kherai and Bakshi khal is the main tributary of river New Cossye. The total length of Kangsabati is around 465 km. The catchment area of this sub-basin is 6,645 sq.km. Very often, lower portion of this sub-basin especially Ghatal area of Paschim Medinipur and Panskura area of Purba Medinipur districts suffer from inundation due to high flood discharge from its uncontrolled catchment downstream of the Mukutmanipur dam synchronizing with high tide in river Rupnarayan.

3.2.18. Kaliaghai Sub-basin

The river Kaliaghai trickles out from Dudhkundi of Jhargram district and flows south-easterly through Paschim and Purba Medinipur to meet the other arm of Kangsabati i.e. New Cossye to form Haldi. During the course of its journey, it is fed by the flow of its tributaries namely Kapaleswari, Baghai and Chandia. The length of this river is 121 km and catchment area is 1,913 sq. km. This river is mainly responsible for flood in Sabang area of Paschim Medinipur district.

3.2.19. Rupnarayan Sub-basin

River Rupnarayan is the major drainage artery of southwestern districts of South Bengal. Being the main tributary of Hooghly river, it receives tidal discharge of Bay of Bengal throughout the year and plays an important role in draining floodwater from vast catchment area. Irrespective of discharges from its major tributaries like Mundeswari, Darakeswar, Shilabati and Kangsabati, it also receives flood water from many local drainage channels like Kata khal of Hooghly, Bakshikhal of Howrah, Chandreswar khal of Paschim Medinipur, Denan-Dehaty-Soadighi-Gangakhali-Pratapkhal-Shankrara khals of Purba Medinipur which directly outfall into Rupnarayan from its both banks. The length of this river is 80 km having local catchment area of 1,226 sq.km.

3.2.20. Haldi Sub-basin

Two rivers New Cossye and Kaliaghai join at Dheubhangal of Purba Medinipur to form river Haldi which after traversing southeastward outfalls into river Hooghly near Haldia town. It divides the Purba Medinipur district into two parts, the Northern part can be categorized as drainage area of Tamluk and the southern part can be categorized as Rasulpur-Nandigram drainage area. Except upper catchment discharges from Kaliaghai-New Cossye sub-basins, river Haldi drains out water from parts of both the above-mentioned drainage areas. The lower portion of the river Haldi is affected by over bank spills and drainage problem during the monsoon as entire stretch of 42 km of the river falls under the tidal influence of river Hooghly. The local catchment area of this sub-basin is 614 sq.km.

3.2.21. Rasulpur Sub-basin

The river Rasulpur is formed by union of two drainage channels namely Bagda and Sadarkhals. It is the main drainage channel in Contai sub-division of Purba Medinipur district. The river having length 19 km drains out flood water of 1,556 sq. km. into the river Hooghly.

3.2.22. Pichabani-Negua Channel Sub-basin

River Pichabani and Negua Diversion channel systems are used to discharge rainwater out from Dubda basin of Purba Medinipur district. The two channels outfall into Bay of Bengal. Catchment area of this sub-basin is 808 sq.km.

3.2.23. Sundarban Drainage Sub-basin

Apart from the rivers described earlier within the Ganga basin, there is a group of rivers in Southern part of the State, which falls in the deltaic zone. These tidal rivers, estuaries and creeks are situated on the eastern side of Hooghly river popularly known as Sundarbans, which is nothing but an intricate network of number of deltaic islands of the district of South 24-Parganas. These rivers drain off whatsoever fresh discharge comes from countrysides, thus ultimately draining into Bay of Bengal. Some important rivers in Sundarban are Muriganga, Mridangabhang, Saptamukhi, Raimangal, Matla, Bidya, Thakuran, Malancha, Kalindi, Gomar etc. The total land area of Sundarban sub-basin is 6,747 sq. km. whereas including all rivers and creeks, Sundarban has gross area of 10,209 sq. km.

3.3. SUBARNAREKHA BASIN

The river Subarnarekha (also called Swarnarekha) though it has small catchment within this state, has separate entity as it directly falls into the Bay of Bengal. Originating in the Chhotonagpur Range at an elevation of 609 m. near Ranchi, it traverses through three states *viz.* Jharkhand, West Bengal and Orissa. It drains out rainwater from a total area of 19,684 sq. km. out of which only 3,593 sq. km falls within Purulia, Paschim Medinipur and Jhargram districts of West Bengal.

One major dam at Chandil and one barrage at Galudi have been constructed across Subarnarekha in Jharkhand. The important tributaries on the right bank of this river are Kanchi and Karkari, which meet Subarnarekha above Chandil dam and another right bank main tributary named as Kharkai meets this river near Jamshedpur upstream of Galudi barrage. Dulung is the main tributary, which joins Subarnarekha from its left in the Jhargram district of West Bengal. The total length of this river is 395 km. out of which 83 km. falls within West Bengal.

Distribution of Catchment Area of River Basins & Sub-Basins of West Bengal						
CWC Basin Code	River Basin	Sub-Basins	CATCHMENT AREA (Sq. Km.)			TOTAL (Sq. Km)
			Jharkhand	Orissa	West Bengal	
6	SUBARNAREKHA	Subarnarekha	13014	3077	3286	19377
		Kashpal			307	307
		Sub-Total	13014	3077	3593	19684

4. HYDRO-METEOROLOGICAL DATA COLLECTION & DISSEMINATION

Irrigation and Waterways Department (IWD), Govt. of West Bengal is responsible for maintenance, collection, compilation and dissemination of hydrological and meteorological data for the purpose of monitoring of flood or flood-like situation for almost all river sub-basins of the State during monsoon. For this purpose, network of river gauges and rain gauges have been established at the important locations and during monsoon flood control rooms in each district are set up including the Central Flood Control Room (CFCR) at Jalasampad Bhavan, Salt Lake, Kolkata.

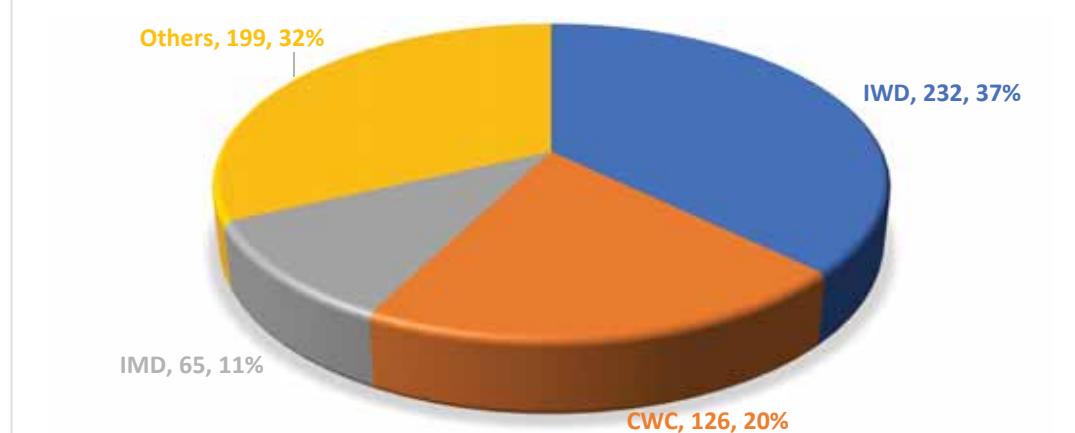
4.1. Rain and River Gauges

Apart from IWD, other organizations like Central Water Commission (CWC), India Meteorological Department (IMD), State Agricultural Department (AGRI), Kolkata Port Trust (KoPT), Damodar Valley Corporation (DVC) and Surface Water Investigation Directorate (SWID) under Water Resources Investigation & Development Department (WRIDD) have set up network of river gauges and rain gauges of their own at different locations for monitoring hydrological and meteorological data. These field data mainly include daily rainfall, water level of river and reservoir, river discharge and inflow-outflow from reservoir. In addition to that other information like inflow forecast, meteorological forecast and flood damage are also collected.

Existing Hydro-Met Monitoring Stations in the State

Type	IWD	CWC	IMD	Others
Rain Gauge Stations (ORG/ARG/AWS/FCS)	127	45	65	55
River Gauge Stations (G/G-D/Sediments/HOS)	105	81	-	144
Total	232	126	65	199
ORG = Ordinary Rain Gauges	ARG = Automatic Rain Gauges			
AWS= Automatic Weather Station	FCS = Full Climatic Station			
HOS = Hydrological Observation Station (Gauge, Discharge, Silt/Sediment, Water Quality)	HMS = Hydro-Meteorological Station (Rainfall, Temperature, Wind speed, Solar radiation, Humidity, & other Weather parameters)			

DISTRIBUTION OF HYDRO-MET STATIONS AMONGST VARIOUS GOVT. ORGANISATIONS IN WEST BENGAL



Besides Ordinary Rain & River gauges, IWD also maintains seven (7) Gauge-Discharge stations at different rivers and thirteen (13) Hydrological Observation Stations (HOS) at Dam & Barrage sites for measurement of Reservoir levels, Inflow, Outflow, Canal discharges & sediment/silt content if requires.

Summary of Hydromet Station Data under Irrigation and Waterways Department

Type of Hydromet Stations	Total number of Station Data collected in IWD website inventory	Published in Daily Flood Reports
Number of Rain Gauges	127	83
Number of River Gauges	85	60
Number of River Gauge & Discharge	7	7
Number of Dam Monitoring (Reservoir Level, Inflow, Out flow)	7	7
Number of Barrage Monitoring (Pond Level, Inflow, Out flow)	6	6

A comprehensive list of existing Hydro-Met stations within the State under the jurisdiction of Irrigation & Waterways Department, Central Water Commission and India Meteorological Department and the data recorded by Irrigation & Waterways Department, is given in **Annexure-III**.

Recently under National Hydrology Project (NHP), IWD is going to commission a '*Real Time Data Acquisition System (RTDAS)*' for efficient flood forecasting and inundation modelling within the State. For this, fully automated radar and sensor type hydro-met stations proposed to be installed. At present, 59 (=41+18) nos. Automatic rain gauges (ARG), 56 nos. automatic water level recorder (AWLR) as river gauges, 7(=3+4) nos. automatic weather stations (AWS) and 49 (=2+47) nos. automatic reservoir monitoring stations are being proposed under the RTDAS in two phases. The works are under progress and detailed lists of those stations are given in

4.2. Role of Central Flood Control Room

The present flood monitoring and management system in the State comprises with the preparation of Daily Flood Report by Central Flood Control Room (CFCR) of IWD and transmission of the same to the State Disaster Management Department with the Head Quarter at Kolkata. This report is also shared with the Chief Secretary, Home Secretary of the State and other organization like Railway Authorities, Bengal Army Headquarters, CWC-Easten Zone Monitoring Office, Kolkata Port Trust (KoPT), Kolkata Municipal Corporation (KMC) and all District Magistrates of the State.

This Daily Flood Report (DFR) generally contains rainfall, river and gauge and discharge, river warning levels/ signals, weather information, reservoir level/inflow/outflow data of different Stations within and outside the State. Sometimes the location and extent of major damages, the status of affected areas under inundation etc. are also included, as and when the situation such warrants. These data are collected from different district flood control rooms under IWD (details given in **Annexure-XII**) along with other agencies like IMD, CWC and DVC by telephone, fax, e-mail or Whatsapp messages. During emergency, separate Flood Bulletin is issued and the same will be disseminated also to the District Disaster Management Cells and other authorities via e-mail, Fax, SMS or Whatsapp messages. Daily flood reports are also uploaded in the departmental web site: www.wbiwd.gov.in.

This year, CFCR was operational 24x7 during entire monsoon & flood season starting from 1st June, 2020 to 31st October 2020, collected raw data from all existing hydro-met stations & reservoir data of IWD's district control rooms, rainfall and weather forecast/warning from IMD websites, relevant data from CWC, DVC, Chandil Dam, Galudih & Sikatia barrage authorities, compiled all these in the standard proforma and finally prepared the Daily Flood Report for dissemination by 10.00 a.m.

Besides the normal flood season, this year CFCR was also in force round the clock during super cyclonic storm 'Amphan' right from its formation until it fades away from the State. CFCR continuously monitored the position & stages, gathered weather informations like rainfall, wind speed, strom surge etc. from IMD New Delhi & Kolkata offices, collected physical damage reports from IWD field offices and published its *Special Bulletin* twice daily.

5. RAINFALL

Climatological variations are observed in West Bengal due to its physical and geographical position. The annual normal rainfall of the State is 1,826 mm, of which 77% occurs during the monsoon period while the hilly regions at the foothills of Himalaya receive the heaviest rainfall ranging from 2500 mm to 4000 mm. The southern districts in the plains receive average of 1125 mm to 1875 mm. Main rainfall season in this state is the South-West monsoon season during which the entire land (excepting the extreme north, the extreme north-east and extreme south) gets 75% of the annual rainfall. The gangetic plains of West Bengal get 78% of its annual rainfall during the monsoon period distributed normally from 1st week of June to the end of September. But during last few years, some parts of West Bengal have experienced cyclone, premature heavy rainfall in the last week of May causing flood and drainage congestion. However, the late withdrawal of monsoon even after second week of October has also been observed.

5.1. Normal Rainfall Pattern

The river Ganga divides the State into two parts, which are by and large homogeneous from the meteorological point of view. The northern half is designated as 'Sub-Himalayan West Bengal' and the southern half as 'Gangetic West Bengal'. Sub-Himalayan West Bengal is more susceptible to heavy rains both in respect of amount as well as in frequency of occurrence.

Very heavy rain is more frequent in first two months (June and July) than in subsequent, in the Sub-Himalayan West Bengal. In Gangetic West Bengal, the frequency is maximum in August followed by June, July and September in that order. On the basis of rainfall distribution, the State can be divided into two broad zones -(i) The Himalayan and Sub-Himalayan Region (ii) The Gangetic Plains

i) Himalayan and Sub-Himalayan Region

The Himalayan and Sub-Himalayan Region comprises the districts of Darjeeling, Kalimpong, Jalpaiguri, Alipurduar, Coochbehar and Northern part of Islampur Sub-Division of Uttar Dinajpur district of high intensity of average annual rainfall from 2000 mm to over 4000 mm, about 80% of which is found to occur during monsoon season (Annual normal of entire districts of North Bengal = 2484 mm). On an average, Darjeeling, Coochbehar and Jalpaiguri get 114, 112 and 110 rainy days respectively in a year.

The monsoon generally follows a northern track to ultimately break up against Eastern Himalaya causing very heavy rainfall and thereafter, trough of low pressure under break monsoon conditions. It then shifts northward to the Himalayan foothills. It has been found that a precipitation between 200 to 300 mm in two hours is not unusual.

ii) Gangetic Plains

The gangetic plains which constitute the major portion of the State, can be further sub-divided into the following three sectors on the basis of average rainfall.

Sector-I: Bankura, Burdwan (Purba & Paschim), Hooghly, Nadia and Purulia districts which receive an average annual rainfall between 1140 mm and 1400 mm (Annual normal = 1348 mm).

Sector-II: Birbhum, Midnapore (Purba & Paschim including Jhargram), Murshidabad and North 24-Parganas having an average annual rainfall between 1400 mm and 1650 mm (Annual normal = 1590 mm).

Sector-III: Kolkata, Howrah and South 24-Parganas having an average annual rainfall - between 1650 mm and 1900 mm (Annual normal = 1796 mm).

Such regional variations in the precipitation may causes flood condition time to time.

5.2. Intensity & Spatial Distribution of Rainfall

The India Meteorological Department (IMD) categorizes the intensity and distribution of daily rainfall in the following manner:

Intensity of Rainfall

Descriptive term used	Rainfall amount (in mm)	Descriptive term used	Rainfall amount (in mm)
No Rain	0	Rather Heavy Rain	35.6 - 64.4
Very Light Rain	0.1 - 2.4	Heavy Rain	64.5 - 124.4
Light Rain	2.5 - 7.5	Very Heavy Rain	124.5 - 244.4
Moderate Rain	7.6 - 35.5	Extremely Heavy Rain	> 244.5
Exceptionally Heavy Rain		When the amount is a value near about the highest recorded rainfall at or near the station for the month or season. However, this term will be used only when the actual rainfall amount exceeds 120 mm.	

Spatial Distribution of Rainfall

Distribution	No. of Places	Description
Isolated	One or two places	< 25% of stations get rainfall
Scattered	At a few Places	(26–50) % of stations get rainfall
Fairly Widespread	At many places	(51–75) % of stations get rainfall
Wide spread	At most places	(76–100) % of stations get rainfall
Dry	—	No station reported rainfall

Weekly/Seasonal Rainfall Distribution on Regional Scale

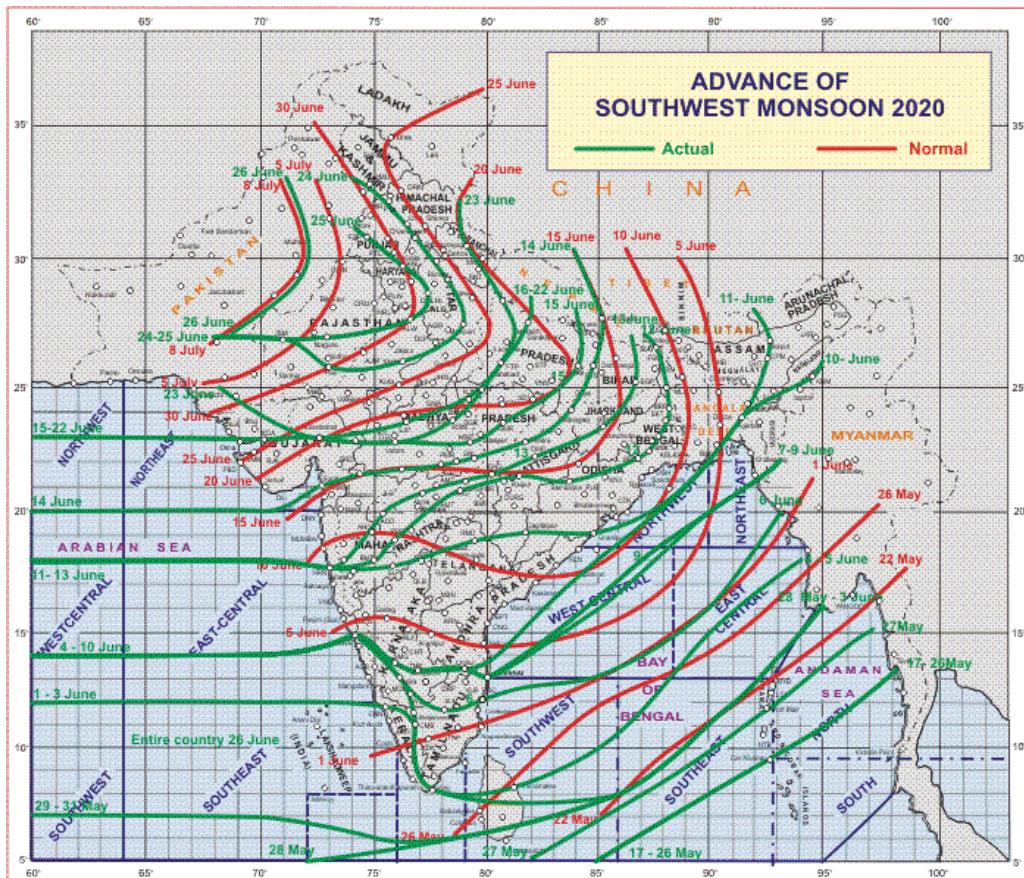
Large Excess	Percentage departure of realized rainfall from normal rainfall is + 60% or more.
Excess	Percentage departure of realized rainfall from normal rainfall is between + 20% to + 59%.
Normal	Percentage departure of realized rainfall from normal rainfall is between - 19 % to + 19 %.
Deficient	Percentage departure of realized rainfall from normal rainfall is between - 20 % to - 59 %.
Scanty	Percentage departure of realized rainfall from normal rainfall is between - 60 % to - 99 %.
No Rain	Percentage departure of realized rainfall from normal rainfall is - 100 %.

Rainfall Distribution on All India Scale

Normal	Percentage departure of realized rainfall from normal rainfall is within \pm 10 % of the Long Period Average.
Below Normal	Percentage departure of realized rainfall from normal rainfall is < 10 % of the Long Period Average.
Above Normal	Percentage departure of realized rainfall from normal rainfall is > 10 % of the Long Period Average.
All India Drought Year	When the rainfall deficiency is more than 10%, and when 20 to 40% of the country is under drought conditions, then the year is termed as All India Drought Year
All India Severe Drought Year	When the rainfall deficiency is more than 10% and when the spatial coverage of drought is more than 40%, it is called as All India Severe Drought Year.

5.3. Monsoon 2020

As per IMD-Kolkata, this year South West Monsoon had onset over Kerala on 1st June and had arrived some part of West Bengal & Sikkim on 11th-12th June and covered whole of West Bengal within 13th June.



The Sectoral variations of monthly average rainfall in West Bengal during monsoon months 2020 is given below with colour coding, which is derived from IMD's district-wise monthly rainfall data (presented in **Annexure IV-A**).

Variation of Monthly Average Rainfall (mm) of Sub-Himalayan West Bengal during Monsoon 2020

Month	June			July			August			September		
	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep
North Bengal Sector	589.6	462.6	27.5%	804.2	627.8	28.1%	358.9	470.6	-23.7%	753.7	384.6	96.0%

Variation of Monthly Average Rainfall (mm) of Gangetic Plains of West Bengal during Monsoon 2020

Month	June			July			August			September		
South Bengal	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep
Sector-I	275.0	232.3	18.4%	298.6	296.6	0.7%	303.9	275.3	10.4%	129.7	235.1	-44.8%
Sector-II	290.6	257.7	12.8%	289.3	330.7	-12.5%	339.4	318.4	6.6%	190.2	292.9	-35.1%
Sector-III	288.2	281.9	2.2%	269.8	388.5	-30.6%	394.3	353.4	11.6%	181.7	318.5	-43.0%

*Dep = Departure

**Raw Data Source: IMD, Kolkata

The graphical representation of district-wise monthly rainfall 2020 vis-à-vis normal rainfall are given in **Annexure IV-B**. The cumulative monthly rainfall of various Rain gauge stations for different River Sub-Basins, as observed at I&WD's Central Flood Control Room during entire flood season i.e., from 1st June to 31st October, is given in **Annexure-VI**.

The progress of monsoon 2020 week by week, as per IMD-New Delhi for two meteorological sub-divisions in West Bengal, is presented below.

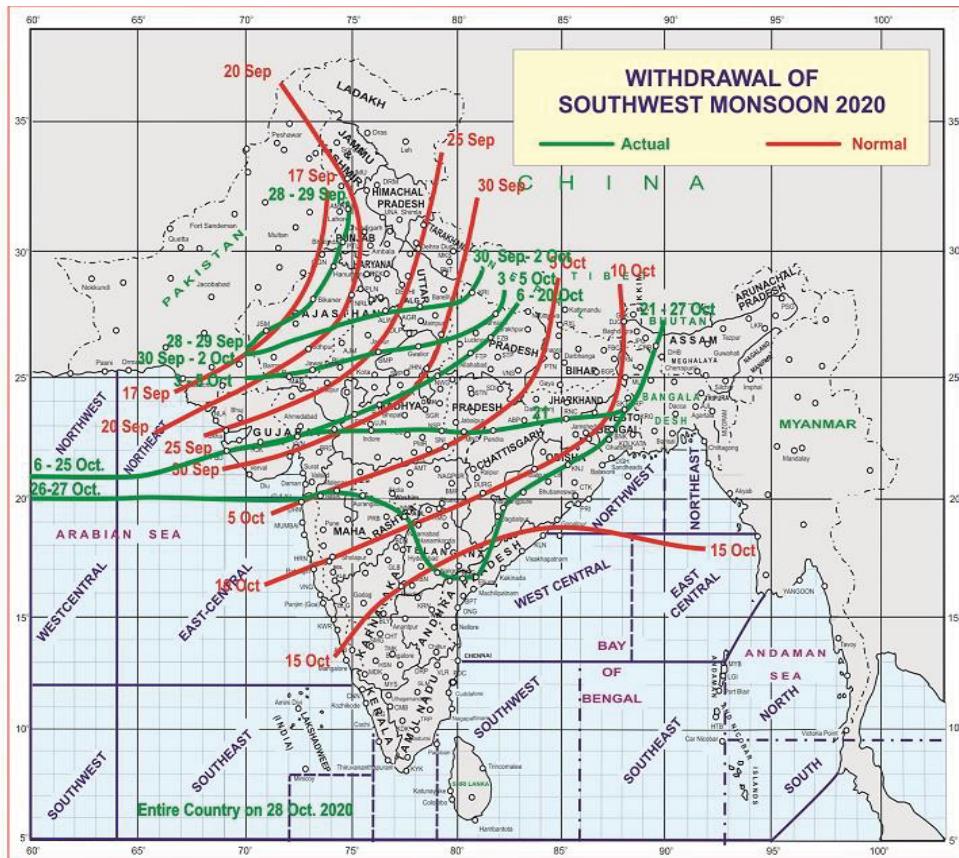
S.NO	MET. SUBDIVISION	WEEK ENDINGS																
		3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	26-Aug	2-Sep	9-Sep	16-Sep	23-Sep
5	S.H.W.B. & SIKKIM																	
6	GANGATIC W.B.																	

In North Bengal (Himalayan and Sub-Himalayan region), the average monsoon rainfall deviation was 28.8% from its normal average while that of South Bengal (Gangetic Plains) it is only -8.1%.

Average Monsoon [01.06.20-30.09.20] Rainfall (mm)			
Zone	Actual	Normal	% Dep
North Bengal	2506.3	1945.5	28.8%
South Bengal	1075.8	1170.9	-8.1%

For the State as a whole, the monsoon rainfall as per IMD, from 1st June to 30th September 2020 was **normal** with the percentage departure (i.e., deviation from its normal value) is only **5.8%**. The annual rainfall deficiency is somehow adjusted with post monsoon and winter rainfall. Thus, annual average rainfall for the state is also achieved at normal with a little surplus departure of **9.8%** only. Season-wise Average Rainfall Statistics of West Bengal for the Year 2020 as per data provided by IMD, Kolkata is presented in **Annexure-V**.

As per IMD, Kolkata, the South-west monsoon had withdrawn from most parts of West Bengal on 14th October 2020. The withdrawal lines are given below.



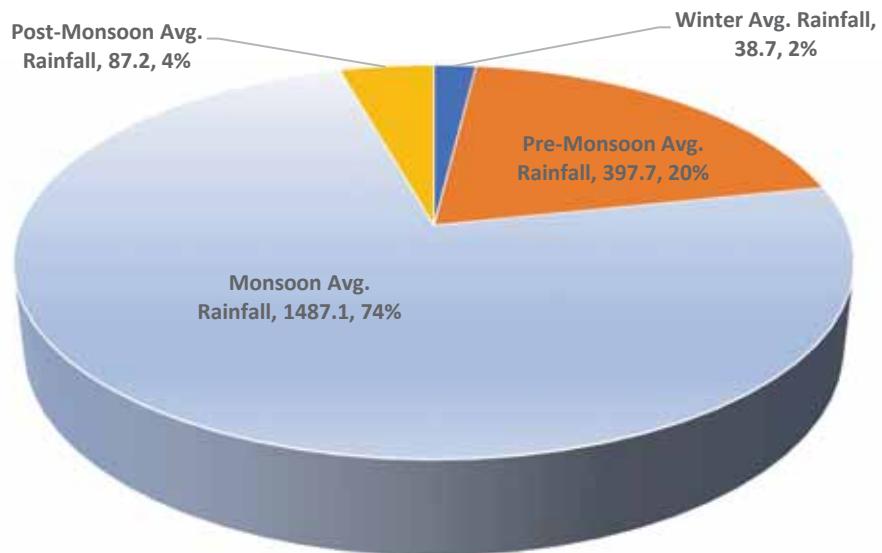
5.4. Annual Rainfall 2020

As defined by IMD, meteorological seasons comprising of four seasons.

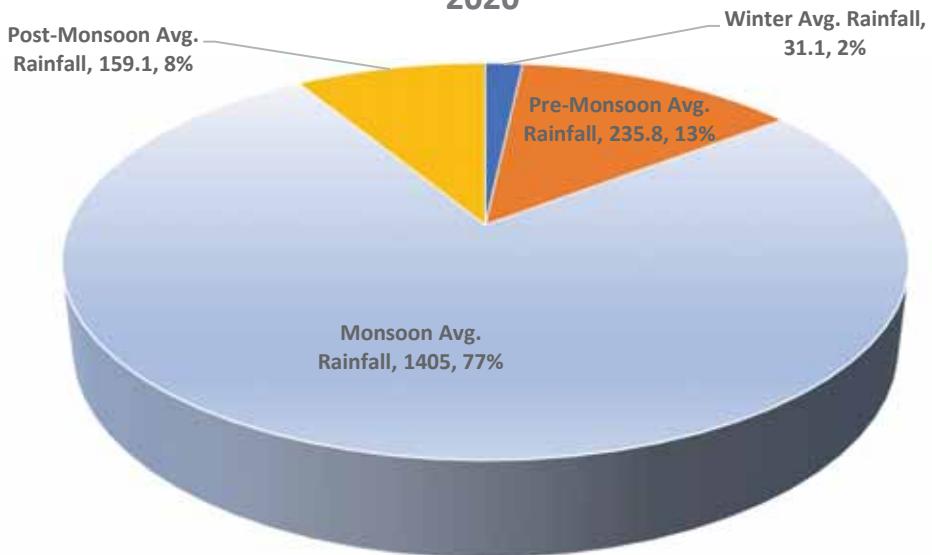
- A) Winter (1st January to 28th February)
- B) The Pre-monsoon (1st March to 31st May),
- C) Monsoon (1st June to 30th September) and
- D) Post-monsoon (1st October to 31st December)

The seasonal distribution of rainfall in West Bengal is graphically presented below:

Distribution of Seasonal Acutal Rainfall of West Bengal in 2020



Distribution of Seasonal Normal Rainfall of West Bengal in 2020



IMD, RMC, Kolkata has prepared a percentage rainfall departure map from long period average for the districts in West Bengal for winter, pre-monsoon, monsoon, and post monsoon period which are presented below:

**INDIA METEOROLOGICAL DEPARTMENT
RMC KOLKATA**

**Rainfall % Departures from the Long Period Averages
for Districts in WEST BENGAL**

PERIOD : 01.01.2020 - 29.02.2020



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

**INDIA METEOROLOGICAL DEPARTMENT
RMC KOLKATA**

**Rainfall % Departures from the Long Period Averages
for Districts in WEST BENGAL**

PERIOD : 01.03.2020 - 31.05.2020

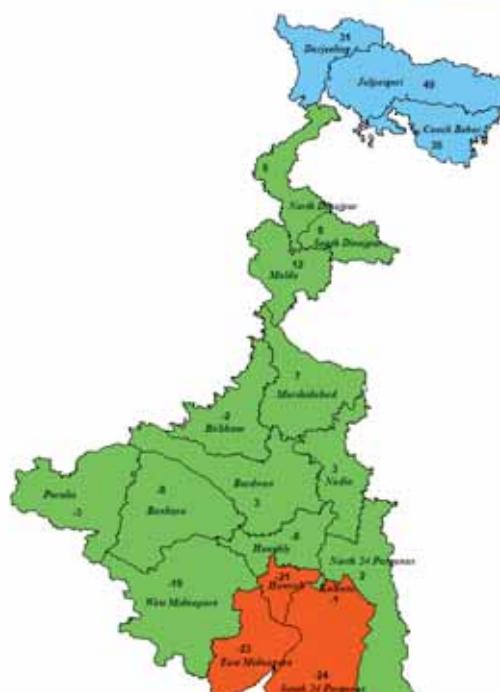


LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

**INDIA METEOROLOGICAL DEPARTMENT
RMC KOLKATA**

**Rainfall % Departures from the Long Period Averages
for Districts in WEST BENGAL**

PERIOD : 01.06.2020 - 30.09.2020

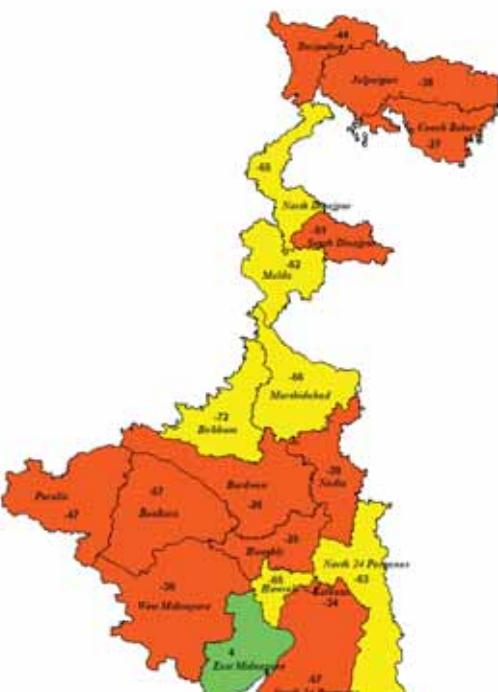


LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

**INDIA METEOROLOGICAL DEPARTMENT
RMC KOLKATA**

**Rainfall % Departures from the Long Period Averages
for Districts in WEST BENGAL**

PERIOD : 01.10.2020 - 31.12.2020



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

6. FLOOD SEASON 2020

As per Govt. of India's Water Resources Information System (India-WRIS) and Central Water Commission (CWC), monsoon period comprises of five months from June to October. Accordingly, flood season in West Bengal also encompasses from June to October. The distribution of monthly average rainfall in the State for this season shows a very normal rainfall with average departure of 5.8% that varies from maximum surplus of 17% in June 2020 to maximum deficit of 37% in October 2020.

Distribution of Monthly Average Rainfall in West Bengal during Flood Season 2020

Month	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure	Remarks
June-20	371.1	316.7	17%	Normal rainfall
July-20	433.0	419.8	3%	Normal rainfall
Aug.-20	355.7	361.0	-1%	Normal rainfall
Sept.-20	327.2	307.5	6%	Normal rainfall
Oct.-20	82.9	132.3	-37%	Deficient rainfall

* Data source: IMD-Kolkata

Month-wise statistical analysis of River Gauges i.e. Maximum peak values, Minimum river gauges, average river stages, number of days river level crossed primary danger level (PDL), danger level (DL) and extreme danger level (EDL) and during Flood Season, 2020 is presented in **Annexure-VII**.

6.1. Flood Spells in North Bengal

6.1.1. In June 2020: Before the onset of monsoon, one day heavy to very heavy isolated rainfall occurred at few places of North Bengal. On onset, few days rainfall had occurred in Jalpaiguri District close to 16th and but as the rivers were thirsty at very beginning it was well attenuated. After ten days there was a three days spell of heavy to extremely heavy rainfall had occurred in Sankosh, Jaldhaka and Torsa sub-Basins with maximum of **324.4 mm** rainfall in past 24 hrs at Tufanganj. The Rainfall spell is shown in the following table:

Sl. No.	RIVER SUB BASIN	District	Normal Annual Rainfall (mm)	Location of Rain Gauge Station	Rainfall in past 24-hrs. (mm)			Total Rainfall in 3-days (mm)	% of Normal Annual
					25.6.20	26.6.20	27.6.20		
1	Teesta	Jalpaiguri	3463.3	Jalpaiguri	17.8	50.9	145.8	214.5	6.19%
2				Banarhat	2.0	20.0	117.2	139.2	4.02%
3	Jaldhaka			Mainaguri	55.0	59.0	146.0	260.0	7.51%
4	Coochbehar	3443.7	Mathabhanga	166.8	135.0	65.8	367.6	10.67%	
5	Sankosh	Alipurduar	3463.3	Barabisha	255.0	107.0	172.6	534.6	15.44%
6		Jalpaiguri	3463.3	Hasimara	69.0	56.4	208.0	333.4	9.63%
7		Alipurduar	3463.3	Alipurduar	290.6	105.4	205.0	601.0	17.35%
8	Torsa	Coochbehar	3443.7	Coochbehar	262.2	98.2	75.9	436.3	12.67%
9				Tufanganj	235.6	324.4	135.6	695.6	20.20%

As a consequence, the rivers in the sub basins spate and flows at alarming levels. The peak flood levels in different river gauge stations is presented below.

Sl. No.	Name of River	Name of Gauge Station	Name of District	Maximum Water Level / Flood Peak		
				(mGTS)	On	Remarks
1	Raidak-I	Tufanganj	Coochbehar	35.35	28-06-2020	0.05 m above DL
2	Torsa	Hasimara	Alipurduar	115.85	27-06-2020	0.45 m below DL
3		Coochbehar	Coochbehar	41.90	27-06-2020	0.17 m below DL
4	Jaldhaka	NH-31 Crossing	Jalpaiguri	79.92	28-06-2020	0.18 m below DL

5	Mansai	Mathabhanga	Coochbehar	47.62		28-06-2020	0.08 m below DL
6	Teesta	Domohani	Jalpaiguri	85.73		28-06-2020	0.22 m below DL
7	Punarbhava	Gangarampur	South Dinajpur	26.12		28-06-2020	0.40 m above DL

The peak of Punarbhava had occurred due to heavy rainfall at its upper catchments in Bangladesh.

6.1.2. In July 2020: Four short spells of three to four days (sometimes five) continuous Rainfall occurred in North Bengal districts (except Dinajpur and Malda) in July 2020. Remarkable rainfall had occurred on 2nd, 12th, 21st and 31st of July. The rainfall statistics during the month of July at some of the rain gauge stations in North Bengal is shown in the following table.

Sl. No.	River Sub Basin	District	Normal Annual Rainfall (Mm)	Rain Gauge Station	Rainfall in 1st spell (mm)	Rainfall in 2nd spell (mm)	Rainfall in 3rd spell (mm)	Rainfall in 4th spell (mm)	% of normal annual of 4-Sp	1-Day Max. Rainfall (mm)	Occurred on
1	Teesta	Jalpaiguri	3463.30	Malbazar	361.6	809.0	340.8	236.8	50.48%	290.6	12-07-20
2	Jaldhaka			Banarhat	230.0	363.0	491.0	352.0	41.46%	220.0	22-07-20
3	Sankosh	Alipurduar	3463.30	Barabisha	239.0	701.0	214.6	451.8	46.38%	222.0	31-07-20
4	Torsa	Jalpaiguri	3463.30	Hasimara	419.6	457.4	295.0	322.3	43.15%	195.0	03-07-20
5		Alipurduar	3463.30	Alipurduar	381.8	580.6	608.4	267.2	53.07%	345.4	12-07-20
6		Coochbehar	3443.70	Tufanganj	221.6	467.0	235.2	480.2	40.77%	231.4	09-07-20
7	Mahananda	Darjeeling	3118.50	Siliguri	265.4	407.0	310.8	267.2	40.10%	232.0	12-07-20

As a result, rivers of North Bengal experienced several peak inflow hydrographs during July 2020 and River Fulahar in particular, continuously flowed at alarming level during entire month due to prolonged rainfall and its accumulation at its upper catchment situated outside of the State. The peak of Punarbhava had occurred due to heavy rainfall at its upper catchments in Bangladesh. The peak flood levels in different river gauge stations have been presented in the table below.

Sl. No.	Name of River	Name of Gauge Station	Name of District	Maximum Water Level / Flood Peak		
				(mGTS)	On	Remarks
1	Raidak-I	Tufanganj	Coochbehar	35.92	13-07-2020	0.02 m above EDL
2	Kaljani	Alipurduar	Alipurduar	45.25	12-07-2020	0.15 m above DL
3	Jaldhaka	NH-31 Crossing	Jalpaiguri	80.23	11-07-2020	0.13 M Above DL
4	Mansai	Mathabhanga	Coochbehar	48.32	22-07-2020	0.12 m above EDL
5	Teesta	Domohani	Jalpaiguri	86.14	12-07-2020	0.19 m above DL
6	Mahananda	Englishbazar	Malda	21.65	26-07-2020	0.10 m below EDL
7	Fulahar	Teljana	Malda	27.77	31-07-2020	0.34 m above DL
8	Punarbhava	Gangarampur	South Dinajpur	26.41	15-07-2020	0.01 m below EDL

Due to high river stages, warning signals were frequently imposed (over forty times) for unprotected & protected areas of North Bengal. List of such signals is presented in **Annexure-X**.

6.1.3. In August 2020: Rainfall of August in North Bengal was deficient i.e., below normal as stated in cl. 5.3 of previous chapter (also presented in **Annexure IV - A & B**) except some intermittent rainfall occurred near 10th and 30th August. Hence river stages were also not so troublesome.

6.1.4. In September 2020: On the contrary, rainfall in North Bengal districts in September were in Large Excess (as stated in cl. 5.3 of previous chapter and also presented in **Annexure IV- A & B**). Two large spells of five to six days of rainfall and one short spell of three days rain had occurred during the month with some concentration observed on 6th, 11th, 15th, 23rd & 27th September. One-day peak rainfall in this month

at different rain gauge locations are presented below.

Sl. No.	River Sub Basin	District	Normal Annual Rainfall (mm)	Rain Gauge Station	One Day Max. Rainfall	
					(mm)	On
1	Teesta	Darjeeling	3118.5	Darjeeling	125.6	22-09-2020
2		Jalpaiguri	3463.3	Jalpaiguri	177.4	23-09-2020
3	Jaldhaka			Banarhat	131.0	23-09-2020
4	Coochbehar	3443.7	Mainaguri	240.0	23-09-2020	
5			Sankosh			Mathabhanga
6	Alipurduar	3463.3	Barabisha	181.6	23-09-2020	
7			Torsa			Alipurduar
8	Coochbehar	3443.7	Coochbehar	233.2	15-09-2020	
9			Mahananda			Tufanganj
10	Darjeeling	3118.5	Siliguri	146.4	01-09-2020	
11	North Dinajpur	North Dinajpur	1727.6	Islampur	109.2	27-09-2020
12	Punarbhava	South Dinajpur	1584.9	Gangarampur	172.5	13-09-2020

Due to such rainfall pattern, river stages in North Bengal were on high spate particularly in Coochbehar, South Dinajpur and Malda where gauge had crossed DL/EDL during heavy precipitation as well as upper catchment discharge. Following table shows the peak flood conditions.

Sl. No.	Name of River	Name of Gauge Station	Name of District	Maximum Water Level / Flood Peak		
				(mGTS)	On	Remarks
1	Raidak-I	Tufanganj	Coochbehar	35.73	16-09-2020	0.17 m below EDL
2	Mansai	Mathabhanga		48.00	24-09-2020	0.20 m below EDL
3	Mahananda	Englishbazar	Malda	21.42	30-09-2020	0.42 m above DL
4	Fulahar	Teljana		28.37	29-09-2020	0.20 m above EDL
5	Atreyee	Balurghat	South Dinajpur	23.60	29-09-2020	0.16 m below EDL
6	Punarbhava	Gangarampur		26.81	29-09-2020	0.39 m above EDL

Some warning signals were also imposed (over ten times) for unprotected & protected areas of North Bengal. List of such signals is presented in **Annexure-X**.

6.1.5. In October 2020: Rainfall of October in North Bengal was overall deficient i.e., below normal except few cases (as evidenced from **Annexure IV - A & B**). Hence river stages were normal except Mahananda-Fulahar system. Due to continuous upland discharge, high spate (above EDL particularly for Mahananda at Englishbazar) was predominant during the 1st week of October.

Flood frequency curves (Gauge Level vs. Time) of different rivers in entire North Bengal have been presented in **Annexure VIII-A**.

6.2. Flood Spells in South Bengal

6.2.1. In June & July 2020: Rainfall of early part of Monsoon in South Bengal was normal (**Annexure IV - A & B**). Hence river stages were either below gauge or lacking excess flesh except River Bhagirathi-Hoogly at Swarupganj where high stages observed at the end of July mainly due to cumulative upland discharge.

6.2.2. In August 2020: Overall rainfall in August was also normal apart from some sporadic single day heavy/very heavy rain on 5th, 12th, 23rd and 26th and two days heavy to very heavy rain had occurred in 19th & 20th August in the lower gangetic plains.

Due to such precipitation, river stages were within safe limit except River Bhagirathi-Hoogly at Swarupganj and Jamuna at Ghaighata. River Mathabhanga at

Majhdia and Ichamati at RD Setu ran bankfull at the beginning and at end of this month respectively. Due to noticeable upstream Dam & Barrage releases, Amta Channel at Amta, Old Cossey at Kalmijol, New Cossey at Panskura, Kapaleswari at Kalimandap, Chandia at Barisha, Kaliaghai at Amgachia, Bakrabad showed alarming levels for the particular period.

6.2.2. In September & October 2020: Rainfall in September and October were deficient for South Bengal, except the scattered one day heavy to very heavy rainfall that had occurred on 2nd, 8th and 18th September and 1st October. Due to soil saturation and present river morphologic condition, river Jamuna at Ghaighata and river Ichamati at RD Setu ran their bankfull.

Statistical analysis of River gauge data for whole West Bengal during the flood season 2020 is detailed in **Annexure-VII**. Flood frequency curves of different rivers in South Bengal have been presented in **Annexure VIII-B**.

6.3. Reservoir and Barrage Data

The instantaneous Inflow-Outflow and Reservoir level of large dams and important barrages either under the control of Irrigation & Waterways Department or those have direct impact on the flood situation of West Bengal have been measured during the flood season. Monthly Statistics of data of those Dam-Barrage Operations i.e. maximum, minimum & average reservoir level, inflow & outflow data was analyzed and presented in **Annexure IX-A**. The inflow-outflow data along-with reservoir levels of those important Dams and Barrages during 1st June to 31st October, 2020 have been graphically presented in **Annexure IX-B**.

6.4. Warning / Signal System

North Bengal Central Flood Control Room, Jalpaiguri imposes warning / signal system for protected and unprotected river banks of North Bengal during peak flood period. The details of signal imposed and later withdrawn; on receding of river levels is given in the following table.

Flood Warning Levels of North Bengal Rivers

Gauge obtained from	Signal Imposed By	Name of River	Name of Gauge Station	Unprotected Area		Protected Area		
				Yellow	Red	Yellow	Red	
Irrigation & Waterways Department, Government of West Bengal	JPG	Teesta	Teesta Bazar	211.00	213.00	/\	/\	
			Coronation Bridge	149.40	151.80	150.00	153.60	
			Domohoni	85.65	85.95	85.95	86.30	
			Mekhliganj	65.45	65.95	/\	/\	
	CBR	Jaldhaka	N.H-31 C (Nagrakata)	160.70	161.30	161.00	161.80	
			N.H-31 Crossing	80.00	80.50	80.10	80.90	
	CBR	Mansai	Mathabhanga	47.70	48.70	48.40	48.90	
	APD	Torsa	N.H-31 C (Hasimara)	116.30	116.90	116.30	117.50	
			C.B.R (Kashab Ashram)	42.07	42.68	/\	/\	
	APD		Kaljani	P.W.D (Alipurduar)	45.10	45.70	/\	/\
			Raidak-I	N.H-31C (Chapan)	46.70	47.60	47.00	47.90
			Raidak-II	N.H-31C (Telepara)	48.10	49.00	48.40	49.30
			Daina	Chengmari	200.50	201.40	/\	/\
			Sankosh	N.H-31C (LRP)	48.20	49.10	48.50	49.40
	CBR		Mujnai	Bhutnir Ghat	61.70	62.30	/\	/\
			Raidak-I	Tufanganj	34.22	35.30	/\	/\
	SLG	Mahananda	Siliguri	115.97	116.59	/\	/\	

Abbreviations: - JPG: Jalpaiguri, CBR: Coochbehar, APD: Alipurduar, SLG: Siliguri

The warning signals imposed for different rivers in North Bengal for this flood season is tabulated in **Annexure-X**.

6.5. Flood Damage Data

Extent and expenditure involved for restoration of flood damages occurred in different districts of West Bengal have been presented in **Annexure XI-B**.

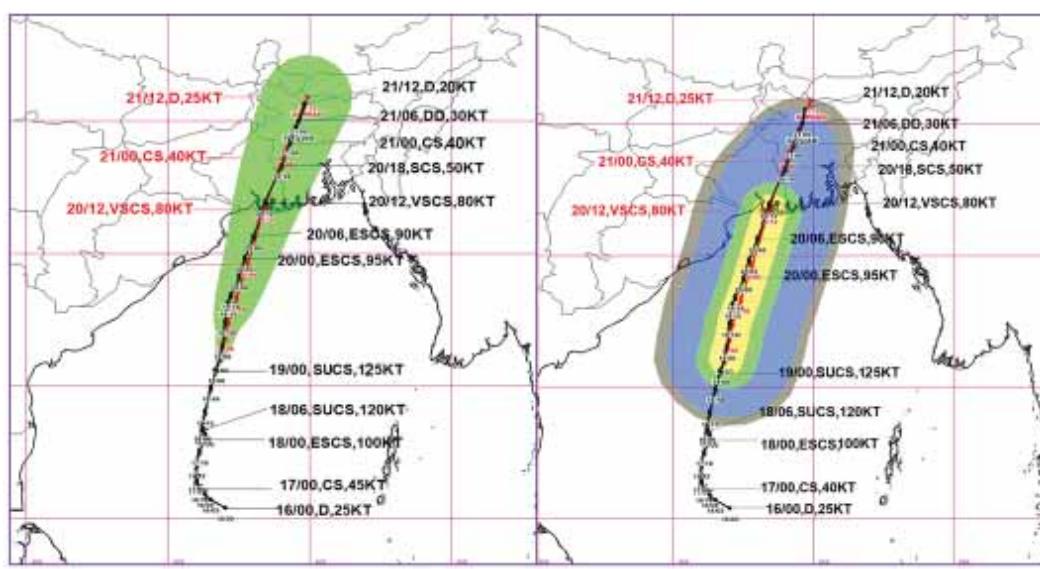
6.6. Cyclonic Storm in 2020

6.6.1. Amphan: The Super Cyclonic Storm "AMPHAN" (pronounced as UM-PUN) originated from remnant of a Low-Pressure Area which occurred in the near Equatorial Easterly wave over south Andaman Sea and adjoining southeast Bay of Bengal (BoB) during 1st – 5th May. Though the low-pressure area, its remnant circulation meandered over south Andaman Sea and adjoining southeast BoB during 6th – 12th May. Under its influence, a fresh low-pressure area formed over southeast BoB and adjoining south Andaman Sea in the morning of 13th May. It lay as a well marked low pressure area over southeast BoB & neighbourhood in the morning of 14th May.

Under favourable environmental conditions, it concentrated into a depression (D) over southeast BoB in the early morning of 16th May and further intensified into a deep depression (DD) in the same afternoon. It moved north-northwestwards and intensified into Cyclonic Storm over southeast BoB in the evening. Moving nearly northwards, it further intensified into a Severe Cyclonic Storm (SCS) over southeast BoB in the morning of 17th May. It underwent rapid intensification during subsequent 24 hours and accordingly intensified into a Very Severe Cyclonic Storm (VSCS) by the afternoon of 17th, Extremely Severe Cyclonic Storm (ESCS) in the early hours of 18th May and into a Super Cyclonic Storm (SuCS) around noon. It maintained the intensity of SuCS over westcentral BoB for nearly 24 hours, before weakening into an ESCS over westcentral BoB around noon of 19th May.

Thereafter, it weakened slightly and crossed West Bengal – Bangladesh coasts as a VSCS, across Sundarbans, near latitude 21.65°N and longitude 88.3°E during 1530-1730 hrs IST of 20th May, with maximum sustained wind speed of 155 – 165 kmph gusting to 185 kmph. It lay over West Bengal as a VSCS, gradually moving north-northeastwards during late evening to night (1200 – 1500 UTC) of 20th May. It moved very close to Kolkata during this period.

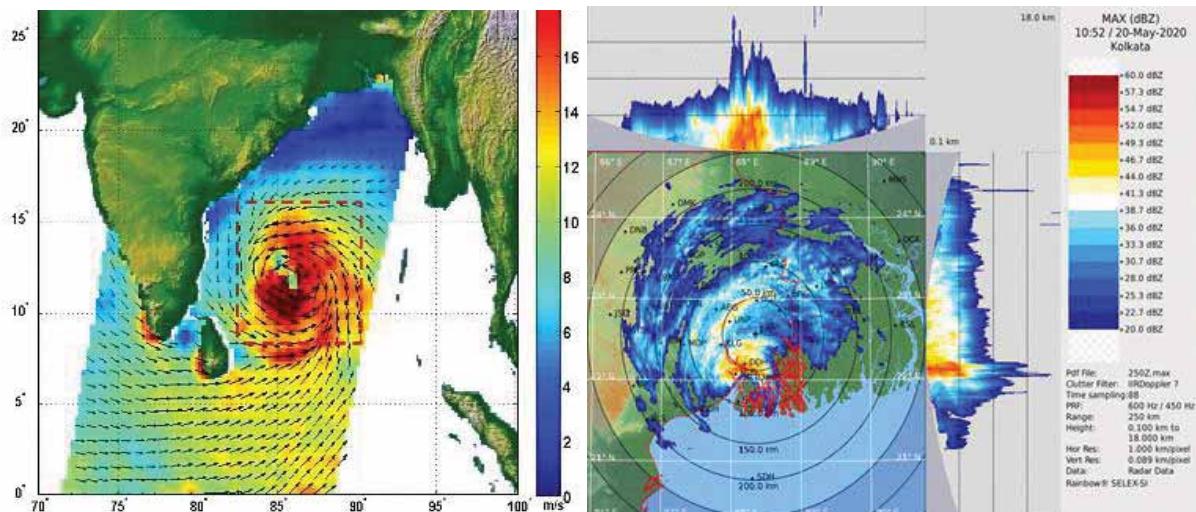
Moving further north-northeastwards, it weakened into an SCS over Bangladesh & adjoining West Bengal around mid-night of 20th May, weakened further into a CS over Bangladesh in the early hours of 21st May, thereafter into DD around noon and into a D over north Bangladesh in the evening of the same day. It further weakened to well marked low pressure area upto mid-night of 21st May.



IMD's Observed and Forecasted track of SuCS "AMPHAN"

It was the first SuCS over the BoB, after the Odisha SuCS of 1999. The observed wind speed at Sagar was maximum of 153.7 kmph, at Dum Dum 133 kmph, at Didha 116.4 kmph and at Alipur 114 kmph during the landfall process. The Realised storm surge, as per the Post Cyclone landfall survey conducted by Area Cyclone Warning Centre (ACWC) Kolkata, tidal waves of 15 Feet height inundated low lying areas of South & North 24 Parganas and adjoining areas of east Medinipur Districts of West Bengal. Extremely heavy to very heavy rainfall recorded at Purba Medinipur, Kolkata, North & South 24- Parganas. And heavy to very heavy rainfall observed at Howrah, Hooghly, Purba Burdwan, Murshidabad, Bankura, Paschim Medinipur and Jhargram.

Total length of damaged river embankment and sea dyke in the form of slips, subsidence (excluding breaches) due to heavy rainfall, wave action & overtopping was 96.04 km. Over seventy number of breaches to embankments /sea dykes totaling to 8 km length of stretch was noticed. 98 persons lost their lives in West Bengal due to this Amphan. The comprehensive damage of IWD's infrastructure is presented in **Annexure XI-A** where departmental action for restoration has already done.



Typical satellite and radar imageries of SuCS Amphan



Images of damage during SuCS Amphan in West Bengal (source: Different News media)

7. Conclusion

Our State is a huge recipient of run-off generated from outside of the State. It has typical basin characteristics. In the northern Sub-Himalayan region, the rainfall is high and the terrain slope is steep. The rivers in the Terai region are wide, shallow and mostly braided. Due to mindless denudation of forest cover and unstable geology in the hills, the silt loads are continuously deposited in the river beds, reducing the carrying capacity of rivers. It causes overflow during high discharges, often creating flood situations. In the northern foothills, central and southern region, heavy rainfall and surface run-off descending from the upper catchments, often outside the State boundary, causes flood inundation and drainage congestion due to flat topography of the region.

Main structural measures of flood control in West Bengal are river embankments measuring about 10,500 km., spread over different river systems, constructed over the years. There are major dams across river Kangsabati, Mayurakshi and Damodar river systems. In the Damodar system, moderation of the dam release during the peak flood is possible to some extent.

In North Bengal, an elaborate flood warning system maintained by the department warns the common people about the trend of rise of water level in rivers and thus alarms them to take necessary precautionary measures well beforehand. In Central and South Bengal, the water level of different rivers together with their danger and extreme danger levels and the releases from different dams and barrages are intimated to different authorities time to time during entire flood season.

Besides this, our department continuously maintains close liaison with the Regional Meteorological Centre (RMC), Kolkata and keeps continuous track of India Meteorological Department (IMD) website in order to collect dynamic information on weather condition during entire monsoon period. In critical situations, the department adopts appropriate measures commensurate with the circumstances. Central Water Commission (CWC) always extend their co-operation by providing different hydro-meteorological data under their jurisdiction.

In every monsoon and during cyclonic storm emergencies beyond the normal flood season, Central Flood Control Room (CFCR), with toll-free landline facilities, becomes operational at Jalasampad Bhawan, Salt Lake, Kolkata to keep close vigil of the situations. It functions round the clock and is always on high alert. It collects daily hydro-meteorological and climatological data from all possible sources, prepares Daily Flood Reports or Bulletins and disseminates to all concerned. Daily reports during entire monsoon period are also available in public domain in the departmental website www.wbiwd.gov.in.

This year two regional flood control rooms (RFCR) at North Bengal, one at Club Road, Jalpaiguri and another at Green Park, Malda become functional for communication of information in better way.

Besides monsoon, this year CFCR was also in force during super cyclonic storm 'Amphan' that has struck on 20th May 2020. CFCR had continuously monitored and kept track the development and advancement of the storm, collected data of associated rainfall, wind speed, storm surge and damages of departmental infrastructure and published special bulletins twice daily in exigencies.

In the previous year, overall rainfall has been normal in entire West Bengal, as such no adverse/flood situation occurred but some extent of localized damages was observed during peak monsoon. Apart from that, damages in river & sea embankments of coastal districts have occurred due to super cyclones 'Amphan'. For both the cases, the department has taken appropriate action at the right time for complete restoration of the damages.

(Sujoy Patra)

Deputy Director (District Plan)
Advance Planning, Project
Evaluation & Monitoring Cell
Irrigation & Waterways Directorate

Dated: 13th May, 2021.

(Kaustubh Jyoti Pal)

Chief Engineer (Design & Research)
Irrigation & Waterways Directorate

(Dr. Abhijit Saha)

Director
Advance Planning, Project
Evaluation & Monitoring Cell
Irrigation & Waterways Directorate

Annexure I: Details of River Network

Sl. No.	RIVER	Tributaries		Location	
		Primary	Secondary	STATE	District
BASIN 2A: BRAHAMAPUTRA		SUB-BASIN: LOWER BRAHAMAPUTRA			
1	Sankosh			Assam	Kokrajhar
				West Bengal	Coochbehar
		Chhoto Sankosh		Assam	Kokrajhar
				West Bengal	Alipurduar
		Raidak-II		West Bengal	Alipurduar, Coochbehar
2	Torsa			West Bengal	Alipurduar, Coochbehar
		Raidak-I	Dhakshi	West Bengal	Alipurduar, Coochbehar
		Gadadhar	Jayanti	West Bengal	Alipurduar
		Kaljani	Bala	West Bengal	Alipurduar
			Nonai	West Bengal	Alipurduar
			Dima	West Bengal	Alipurduar
			Pana	West Bengal	Alipurduar
			Garam	West Bengal	Alipurduar
		Bania		West Bengal	Alipurduar
		Ghargharia		West Bengal	Alipurduar, Coochbehar
		Holong		West Bengal	Alipurduar, Coochbehar
		Dharala		West Bengal	Coochbehar
3	Jaldhaka			West Bengal	Kalimpong, Jalpaiguri, Coochbehar
		Mujnai	Titi	West Bengal	Alipurduar
			Pagli	West Bengal	Alipurduar
			Ekti	West Bengal	Alipurduar
		Jurapani	Shukti	West Bengal	Alipurduar
			Dudua	West Bengal	Jalpaiguri, Alipurduar
			Gilandi	West Bengal	Jalpaiguri
		Diana	Longit	West Bengal	Jalpaiguri
		Khuji Diana	Chetia	West Bengal	Jalpaiguri
		Jiti		West Bengal	Jalpaiguri
		Murti		West Bengal	Jalpaiguri
		Sutanga		West Bengal	Coochbehar
		Jarda	Bagdan	West Bengal	Jalpaiguri, Coochbehar
		Dolong		West Bengal	Coochbehar
4	Teesta			Sikkim	North Sikkim, South Sikkim
				West Bengal	Darjeeling, Jalpaiguri, Coochbehar
		Lachung	Yumthang	Sikkim	North Sikkim
		Lasha		Sikkim	North Sikkim
		Lohnak	Poke, Gome	Sikkim	North Sikkim
		Rangyung	Ringpi, Rukel	Sikkim	North Sikkim
		Chakung		Sikkim	North Sikkim
		Dick		Sikkim	North Sikkim
		Rangit	Rimbi	Sikkim	West Sikkim
			Kalej	Sikkim	West Sikkim
			Rammam	Sikkim	West Sikkim
			Little Rangit	West Bengal	Darjeeling
		Rani		Sikkim	East Sikkim
		Rangpo	Nathang	Sikkim	East Sikkim
		Relli		West Bengal	Kalimpong
		Rangio		West Bengal	Darjeeling
		Leesh		West Bengal	Kalimpong, Jalpaiguri
		Gheesh		West Bengal	Kalimpong, Jalpaiguri
		Dharala		West Bengal	Kalimpong, Jalpaiguri
			Neora, Mal	West Bengal	Kalimpong, Jalpaiguri
			Chel	West Bengal	Darjeeling, Jalpaiguri
		Karla		West Bengal	Jalpaiguri

SI. No.	RIVER	Tributaries		Location	
		Primary	Secondary	STATE	District
BASIN 2B: GANGA		SUB-BASIN: BHAGIRATHI LOWER & OTHERS			
1	Mahananda			West Bengal	Darjeeling, Uttar Dinajpur, Malda
				Bihar	Kishanganj, Purnia
		Balason	Rohini	West Bengal	Darjeeling
		Lachka		West Bengal	Darjeeling
		Taipu	Manjha	West Bengal	Darjeeling
		Mechi	Biring	Bihar	Kishanganj
		Kankai	Ratwa	Bihar	Kishanganj, Purnia
		Panar		Bihar	Araria, Purnia, Katihar
			Bakra	Bihar	Araria, Purnia
			Kesaliya	Bihar	Araria, Purnia
		Dauk		West Bengal	Uttar Dinajpur
		Pitani	Bakuna	West Bengal	Uttar Dinajpur
		Nagar	Sudhani	West Bengal	Uttar Dinajpur
			Kulik	West Bengal	Uttar Dinajpur
		Chiramati		West Bengal	Uttar Dinajpur
		Sui		West Bengal	Uttar Dinajpur
		Tangon		West Bengal	Uttar & Dakshin Dinajpur, Malda
		Mora Mahananda		West Bengal	Malda
		Kalindri		West Bengal	Malda
2	Fulhar			Bihar	Katihar
				West Bengal	Malda
3	Punarbhava			West Bengal	Dakshin Dinajpur, Malda
4	Atreyee			West Bengal	Dakshin Dinajpur
		Kartowa	Neem	West Bengal	Jalpaiguri
			Sahoo	West Bengal	Jalpaiguri
			Chauli	West Bengal	Jalpaiguri
			Talma	West Bengal	Jalpaiguri
		Panga		West Bengal	Jalpaiguri
		Jamuna		West Bengal	Dakshin Dinajpur
		Brahmani		West Bengal	Dakshin Dinajpur
5	Ganga-Padma	Pagla		West Bengal	Malda
		Gumani		West Bengal	Murshidabad
				Jharkhand	Godda, Sahebganj
6	Bansloi			Jharkhand	Sahebganj, Pakur
				West Bengal	Birbhum, Murshidabad
		Bagmari		Jharkhand	Pakur
				West Bengal	Murshidabad
		Krilon		West Bengal	Murshidabad
7	Pagla			Jharkhand	Pakur
				West Bengal	Birbhum, Murshidabad
		Buri		West Bengal	Birbhum
8	Dwarka	Brahmani		Jharkhand	Dumka
				West Bengal	Birbhum, Murshidabad
			Gumra	Jharkhand	Dumka
			Tripti	Jharkhand	Dumka
		Gambhira	Gamri	West Bengal	Birbhum
		Chailan		Jharkhand	Dumka
				West Bengal	Birbhum
		Ghormora		West Bengal	Birbhum
		Kajuli		West Bengal	Birbhum
		Daoka	Manikarnika	West Bengal	Birbhum, Murshidabad
		Banka		West Bengal	Murshidabad

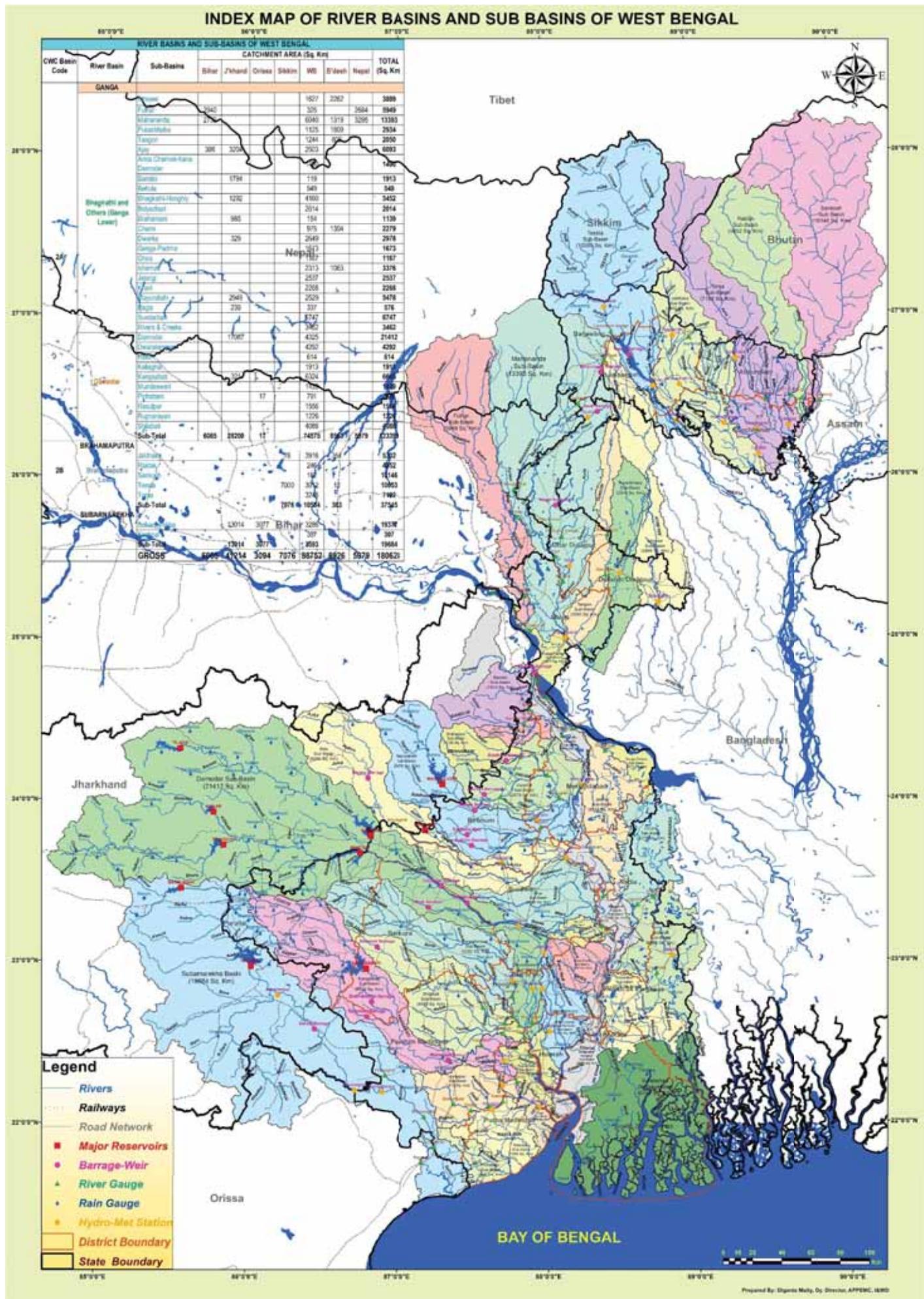
Sl. No.	RIVER	Tributaries		Location			
		Primary	Secondary	STATE	District		
9	Mayurakshi			Jharkhand	Deoghar, Dumka		
				West Bengal	Birbhum, Murshidabad		
		Dhabai		Jharkhand	Dumka		
		Bhurburi		Jharkhand	Dumka		
		Tepra		Jharkhand	Dumka		
		Siddeswari		Jharkhand	Jamtara, Deoghar, Dumka		
			Noonbeel	Jharkhand	Deoghar		
		Kushkarini		Jharkhand	Jamtara		
				West Bengal	Birbhum		
		Kuia	Bakreswar	West Bengal	Birbhum, Murshidabad		
				Jharkhand	Jamtara		
			Kopai	West Bengal	Birbhum		
10	Babla	Mayurakshi		West Bengal	Murshidabad		
		Dwarka		West Bengal	Murshidabad		
11	Ajay			Bihar	Munger		
				Jharkhand	Deoghar, Jamtara		
				West Bengal	Birbhum, East & West Burdwan		
		Dudhwa		Bihar	Munger		
				Jharkhand	Deoghar		
		Pathro & Jayanti		Jharkhand	Giridih, Deoghar		
		Hinglow	Amba	Jharkhand	Jamtara		
				West Bengal	Birbhum		
		Tumoni		West Bengal	West Burdwan		
		Kunur		West Bengal	East & West Burdwan		
		Kana Ajay		West Bengal	Birbhum		
12	Jalangi			West Bengal	Murshidabad, Nadia		
		Bhairab		West Bengal	Murshidabad		
		Sialamari		West Bengal	Murshidabad		
		Suti	Chhoto Bhairab	West Bengal	Murshidabad		
			Bhandardaha	West Bengal	Murshidabad		
13	Churni	Anjana		West Bengal	Nadia		
14	Ichhamati	Jamuna		West Bengal	Nadia, North 24-Parganas		
15	Bidyadhari	Nowai		West Bengal	North 24-Parganas		
16	Khari	Brahmani		West Bengal	East Burdwan		
		Banka		West Bengal	East Burdwan		
17	Behula	Gangur		West Bengal	East Burdwan, Hooghly		
18	Kunti			West Bengal	Hooghly		
19	Ghea	Kedarmati		West Bengal	East Burdwan, Hooghly		
		Kana		West Bengal	East Burdwan, Hooghly		
20	Saraswati			West Bengal	Hooghly, Howrah		
21	Kana Damodar			West Bengal	East Burdwan, Hooghly, Howrah		
22	Amta Channel			West Bengal	East Burdwan, Hooghly, Howrah		
23	Kalindri			West Bengal	South 24-Parganas		
24	Rai Mangal			West Bengal	South 24-Parganas		
25	Bidya			West Bengal	South 24-Parganas		
26	Matla			West Bengal	South 24-Parganas		
27	Gosaba			West Bengal	South 24-Parganas		
28	Thakuran			West Bengal	South 24-Parganas		
29	Saptamukhi			West Bengal	South 24-Parganas		
30	Muri Ganga			West Bengal	South 24-Parganas		
31	Adi Ganga / Tolly's Nullah			West Bengal	Kolkata, South 24-Parganas		
32	Bhagirathi-Hooghly			West Bengal	Birbhum, Murshidabad, Nadia, East Burdwan, Hooghly, Howrah, South & North 24 Parganas, Purba Medinipur		

Sl. No.	RIVER	Tributaries		Location		
		Primary	Secondary	STATE	District	
	BASIN 2B: GANGA		SUB-BASIN: DAMODAR			
1	Damodar			Jharkhand	Latehar, Chatra, Hazaribag, Ramgarh, Bokaro Dhanbad	
				West Bengal	East & West Burdwan, Purulia, Bankura, Hooghly, Howrah	
				Jharkhand	Hazaribag, Giridih, Kodarma, Dhanbad	
				West Bengal	Paschim Bardhaman	
			Igra	Jharkhand	Giridih	
			Ushri	Jharkhand	Giridih	
			Dumohon	Jharkhand	Giridih	
			Barsoti	Jharkhand	Hazaribag	
			Barki	Jharkhand	Latehar, Chatra, Hazaribag	
			Haharo	Jharkhand	Hazaribag	
			Ghari	Jharkhand	Hazaribag	
			Bokaro	Jharkhand	Hazaribag, Bokaro	
			Konar	Jharkhand	Hazaribag, Bokaro	
				Jharkhand	Hazaribag	
			Jamunia	Jharkhand	Hazaribag, Giridih, Bokaro, Dhanbad	
			Naikari, Bhera	Jharkhand	Ranchi, Ramgarh	
			Khanjo, Garga	Jharkhand	Bokaro	
			Khadia, Katri	Jharkhand	Dhanbad	
			Gowai, Ijri	Jharkhand	Bokaro	
				West Bengal	Purulia	
2	Mundeswari	Harinkholo		West Bengal	East Burdwan, Hooghly	
	Darakeswar			West Bengal	Purulia, Bankura, East Burdwan, Hooghly	
3		Futiary, Beko, Dudhibheria		West Bengal	Purulia	
		Arkasha	Kansachor	West Bengal	Purulia, Bankura	
		Dangra		West Bengal	Purulia, Bankura	
		Gandheswari, Berai, Khukra		West Bengal	Bankura	
		Shankari		West Bengal	Paschim Medinipur	
			Amodar	West Bengal	Bankura, Paschim Medinipur	
			Tarajuli	West Bengal	Bankura, Paschim Medinipur	
4	Shilabati	Dev		West Bengal	East Burdwan	
				West Bengal	Purulia, Bankura, Paschim Medinipur	
		Jaiponda		West Bengal	Bankura	
		Puratan, Champayan, Ketia		West Bengal	Bankura, Paschim Medinipur	
		Ruparghghra		West Bengal	Paschim Medinipur	
		Donai		West Bengal	Paschim Medinipur	
		Kubai	Tamal, Parang	West Bengal	Paschim Medinipur	
5	Kangsabati / Kansai	Katan		West Bengal	Paschim Medinipur	
				West Bengal	Purulia, Bankura, Paschim Medinipur, Jhargram	
		Saharjore, Bandhu, Patlooi		West Bengal	Purulia	
		Kumari	Hanumata, Kerro, Jore, Charan	West Bengal	Jhargram, Purulia	
		Jam		West Bengal	Jhargram, Bankura, Purulia	
			Tatko	Jharkhand	Purba Singbhum	
				West Bengal	Purulia	
6	Old Cossye	Jhinuk		West Bengal	Bankura, Paschim Medinipur	
	New Cossye	Tarapheni		West Bengal	Jhargram	
		Kalaichu		West Bengal	Paschim Medinipur	
7	New Cossye	Kherai	Bakshi	West Bengal	Paschim & Purba Medinipur	

Sl. No.	RIVER	Tributaries		Location	
		Primary	Secondary	STATE	District
8	Rupnarayan	Kana Dwarakeswar		West Bengal	Hooghly, East Burdwan
		Polashpai		West Bengal	Paschim Medinipur
		Durbachaty		West Bengal	Purba Medinipur
10	Kaliaghai			West Bengal	Paschim & Purba Medinipur
		Kapaleswari, Deuli		West Bengal	Paschim Medinipur
		Chandia		West Bengal	Paschim & Purba Medinipur
		Baghai		West Bengal	Paschim & Purba Medinipur
11	Haldi			West Bengal	Purba Medinipur
12	Rasulpur			West Bengal	Purba Medinipur
13	Pichabani			West Bengal	Purba Medinipur
14	Negua Channel			West Bengal	Paschim & Purba Medinipur

BASIN 6: SUBARNAREKHA

1	Subarnarekha			Jharkhand	Ranchi, Seraikela-Kharswan, Purba Shingbum
				West Bengal	Purulia, Jhargram, Paschim Medinipur
				Odisha	Balasore
		Jhumur, Rupai		Jharkhand	Ranchi
		Kakro	Rarhu	Jharkhand	Ranchi
		Karru		Jharkhand	Ranchi
				West Bengal	Purulia
		Kanchi		Jharkhand	Ranchi
				Jharkhand	Ranchi, Seraikela-Kharswan
		Damra		Jharkhand	Ranchi, Seraikela-Kharswan
				Jharkhand	Ranchi, Seraikela-Kharswan
		Karkari		West Bengal	Purulia
				Jharkhand	Seraikela-Kharswan
		Chinguru		Odisha	Mayurbhanj
				Jharkhand	Paschim Shingbum
		Kharkai		Garra, Sankh, Kodia	Purba Shingbum
				Jharkhand	Purba Shingbum
		Gurma		West Bengal	Purulia
				Jharkhand	Purba Shingbum
		Singaduba		West Bengal	Paschim Medinipur
				West Bengal	Jhargram
		Dulung, Khajiori		West Bengal	



Annexure -III
A) List of Existing Rain Gauge Stations under I. & W. Dept.

Sl. No.	Rain Gauge Station	Type	Name of the River Sub-basin	District	Normal Annual Rainfall (mm)	Division
1	Uttarbhag	ORG	Adi Ganga	South 24 Parganas	2088.0	Metropolitan Drainage Mechanical Division.
2	Bahari	ORG		Birbhum	1612.4	Mayurakshi South Canal Division
3	Bhedia	ORG		Purba Bardhaman	1315.2	Damodar Head Works Division
4	Debogram	ORG		Birbhum	1612.4	Mayurakshi South Canal Division
5	Nanur	ORG		Birbhum	1612.4	Mayurakshi South Canal Division
6	Satkahania	ORG		Paschim Bardhaman	1315.2	Damodar Head Works Division.
7	Sikatia	CWC		Deoghar	1162.1	Dy. Director (Dist. Plan)
8	Balurghat	ORG	Atrayi	Dakshin Dinajpur	1584.9	South Dinajpur (I) Division
9	Salar	ORG	Babla	Murshidabad	1391.1	Mayurakshi South Canal Division
10	Kadisala	ORG	Bakreswar	Birbhum	1612.4	Mayurakshi South Canal Division
11	Balgona	ORG	Banka	Purba Bardhaman	1315.2	EE-II, Damador Canal Division
12	Sanko	ORG		Purba Bardhaman	1315.2	EE-I, Damodar Canal Division
13	Paikor	ORG	Bansloj	Birbhum	1612.4	Mayurakshi North Canal Division
14	Berhampur	ORG	Bhagirathi-Hoogly	Murshidabad	1391.1	Berhampur (I) Division
15	Katwa	ORG		Purba Bardhaman	1315.2	EE-II, Damador Canal Division
16	Bhairab Banki Barrage	ORG	Bhairab Banki	Bankura	1535.5	Kangsabati Canal Division-V
17	Barasat	ARG	Bidyadhari	North 24 Parganas	1560.8	Bidyadhari Drainage Division
18	Chowbhaga	ORG		South 24 parganas	2088.0	Metropolitan Drainage Mechanical Division.
19	Dum Dum	RMC		North 24 Parganas	1560.8	Dy. Director (Dist. Plan)
20	Md. Bazar	ORG	Brahmani	Birbhum	1612.4	Mayurakshi North Canal Division
21	Nalhati	ORG		Birbhum	1612.4	Mayurakshi North Canal Division
22	Barisha	ORG	Chandia	Paschim Medinipur	1535.5	East Midnapur Division
23	Arsha	ORG	Cossye	Purulia	1363.3	Purulia Const. Division
24	Purulia	ORG		Purulia	1363.3	Purulia(I) Division
25	Simulia	ORG		Purulia	1363.3	Bankura Irrigation Division
26	Tusuma	ORG		Purulia	1363.3	Bankura Irrigation Division
27	Amra	ORG		Howrah	1600.0	EE-I, Lower Damodar Construction Division
28	Antpur	ORG	Damodar	Hooghly	1418.7	EE-I, Lower Damodar (I) Division
29	Asansol	CWC		Paschim Bardhaman	1315.2	Damodar Head Works Division
30	Champadanga	ORG		Hooghly	1418.7	EE-I, Lower Damodar (I) Division
31	Durgapur	CWC		Paschim Bardhaman	1315.2	Damodar Head Works Division
32	Galsi	ORG		Purba Bardhaman	1315.2	Dy. Director (Statistics)
33	Jamalpur	ORG		Purba Bardhaman	1418.7	EE-I, Lower Damodar (I) Division
34	Khandakosh	ORG		Purba Bardhaman	1315.2	Right Bank (I) Division
35	Lohai (Raina)	ORG		Purba Bardhaman	1315.2	Right Bank (I) Division
36	Maithon	CWC		Dhanbad	1355.2	Dy. Director (Dist. Plan)
37	Maliara	ORG		Bankura	1340.4	Right Bank (I) Division
38	Panchet	CWC		Dhanbad	1355.2	Dy. Director (Dist. Plan)
39	Para	ORG		Purulia	1363.3	Purulia I&P Division
40	Raghunathpur	ORG		Purulia	1363.3	Purulia Const. Division
41	Rondia	ORG		Purba Bardhaman	1315.2	Damodar Head Works Division
42	Tenughat	CWC		Bokaro	1247.5	Dy. Director (Dist. Plan)
43	Tilaiya	CWC	Damodar	Koderma	1116.2	Dy. Director (Dist. Plan)

44	Uchalan	ORG		Bankura	1315.2	Right Bank (I) Division
45	Chandrakona	ORG	Donai	Paschim Medinipur	1535.5	Kangsabati Canal Division-I
46	Lodhashuli	ORG	Dulung	Jhargram	1535.5	Kangsabati Canal Division-V
47	Arambag	ORG	Dwarakeswar	Hooghly	1418.7	Hooghly Irrigation Division
48	Bankura	ORG		Bankura	1330.9	Bankura Irrigation Division
49	Bowaichandi	ORG		Purba Bardhaman	1315.2	Right Bank (I) Division
50	Indus	ORG		Bankura	1340.4	Right Bank (I) Division
51	Kamarpukur	ORG		Hooghly	1418.7	Kangsabati Canal Division III
52	Kotolpur	ORG		Bankura	1330.9	Kangsabati Canal Division III
53	Salbandh	ORG		Bankura	1340.4	Right Bank (I) Division
54	Deocha Barrage	ORG		Birbhum	1612.4	Mayurakshi North Canal Division
55	Mollarpur	ORG	Dwarka	Birbhum	1612.4	Mayurakshi North Canal Division
56	Rampurhat	ORG		Birbhum	1612.4	Mayurakshi North Canal Division
57	Singur	ORG		Hooghly	1418.7	EE-I, Lower Damodar (I) Division
58	Itamogra	ORG	Haldi	Purba Medinipur	1669.6	Contai (I) Division
59	Hinglow Dam	ORG	Hinglow	Birbhum	1612.4	Mayurakshi South Canal Division
60	Khayrashole	ORG		Birbhum	1612.4	Mayurakshi South Canal Division
61	Alipore	RMC	Hooghly	Kolkata	1709.2	Dy. Director (Dist. Plan)
62	Bongaon	ORG	Ichamati	North 24 Parganas	1559.8	Bidyadhari Drainage Division
63	Tentulia	ORG		North 24 Parganas	1560.8	Basirhat Irrigation Division
64	Swarupganj	ORG	Jalangi	Nadia	1261.6	Nadia (I) Division
65	Banarhat	ORG	Jaldhaka	Jalpaiguri	3463.0	Jalpaiguri (I) Division
66	Mainaguri	ORG		Jalpaiguri	3463.3	Jalpaiguri (I) Division
67	Amgachia	ORG	Kaliaghaj	Purba Medinipur	1669.6	Contai (I) Division
68	Kesiapata	ORG		Jhargram	1535.5	Kangsabati Canal Division-V
69	Jhargram	ORG	Kangsabati	Paschim Medinipur	1535.5	Kangsabati Canal Division-V
70	Manikpara	ORG		Jhargram	1535.5	Kangsabati Canal Division-V
71	Midnapore	ARG		Paschim Medinipur	1535.5	West Midnapur Division
72	Mohanpur	ORG		Paschim Medinipur	1535.5	West Midnapur Division
73	Mukutmanipur	ORG		Bankura	1330.9	Bankura Irrigation Division
74	Sabang	ORG	Kapaleswari	Paschim Medinipur	1535.5	Kaliaghaj-Kapaleswari-Baghaj Project Div.
75	Dhaniakhali	ARG	Khari-Behula-Ghea	Hooghly	1418.7	Dy. Director (Dist. Plan)
76	Memari	ORG		Purba Bardhaman	1418.7	EE-I, Lower Damodar (I) Division
77	Kultore Barrage	ORG	Kopai	Birbhum	1612.4	Mayurakshi South Canal Division
78	Shyambati	ORG		Birbhum	1612.4	Mayurakshi South Canal Division
79	Adalia	ORG	Kubai	Paschim Medinipur	1535.5	Kangsabati Canal Division-I
80	Kirnaha	ORG	Kuia	Birbhum	1612.4	Mayurakshi South Canal Division
81	Balarampur	ORG	Kumari	Purulia	1363.3	Purulia(I) Division
82	Kharidwar	ORG		Purulia	1363.3	Bankura Irrigation Division
83	Phulberia	ORG		Purulia	1363.3	Bankura Irrigation Division
84	Purihansa	ORG		Purulia	1363.3	Bankura Irrigation Division
85	Gushkara	ORG	Kunur	Purba Bardhaman	1315.2	Damodar Head Works Division
86	English Bazar	IMD	Mahananda	Malda	1419.4	Malda (I) Division
87	Islampur	ORG		Uttar Dinajpur	1727.6	North Dinajpur (I) Division
88	Raiganj	ORG		Uttar Dinajpur	1727.6	North Dinajpur (I) Division
89	Siliguri	CWC		Darjeeling	3118.5	Siliguri (I) Division
90	Malbazar	ORG	Mal	Jalpaiguri	3463.3	Jalpaiguri (I) Division
91	Mathabhanga	CWC	Mansai	Coochbehar	3443.7	Coochbehar (I) Division
92	Haripur	CWC	Mayurakshi	Dumka	1381.5	Mayurakshi Headquarter Division

93	Kandi	ORG		Murshidabad	1391.1	Berhampur (I) Division
94	Khushiyary	CWC		Dumka	1381.5	Mayurakshi Headquarter Division
95	Maharo	CWC		Dumka	1381.5	Mayurakshi Headquarter Division
96	Massanjore	CWC		Dumka	1381.5	Mayurakshi Headquarter Division
97	Narayanpur	ARG		Murshidabad	1391.1	Berhampur (I) Division
98	Suri	ORG		Birbhum	1381.5	Mayurakshi Headquarter Division
99	Tilpara Barrage	CWC		Birbhum	1612.4	Mayurakshi Headquarter Division
100	Raina	ORG	Mundeswari	Purba Bardhaman	1315.2	Right Bank (I) Division
101	Sehera Bazar	ORG		Purba Bardhaman	1330.9	Right Bank (I) Division
102	Panskura	ORG	New Cossye	Purba Medinipur	1669.6	East Midnapur Division
103	Gangarampur	ORG	Punarbhava	Dakshin Dinajpur	1584.9	South Dinajpur (I) Division
104	Tufanganj	AGRI	Raidak-I	Coochbehar	3443.7	Coochbehar (I) Division
105	Contai	CWC	Rasulpur	Purba Medinipur	1669.6	Contai (I) Division
106	Ghatal	ORG	Rupnarayan	Paschim Medinipur	1535.5	West Midnapur Division
107	Tamluk	ORG		Purba Medinipur	1669.6	East Midnapur Division
108	Barabisha	CWC	Sankosh	Alipurduar	3463.3	Dy. Director (Dist. Plan)
109	Domjur	ORG	Saraswati	Howrah	1600.0	EE-I, Lower Damodar Construction Division
110	Kantabandh	ORG	Shali	Bankura	1340.4	Right Bank (I) Division
111	Sonamukhi	ORG		Bankura	1330.9	Right Bank (I) Division
112	Amlagora	ORG	Shilabati	Paschim Medinipur	1535.5	Kangsabati Canal Division-I
113	Panikotar	ORG		Paschim Medinipur	1535.5	Kangsabati Canal Division-I
114	Tantloj	CWC	Siddheswari	Dumka	1381.5	Mayurakshi Headquarter Division
115	Baghmundi	ORG	Subarnarekha	Purulia	1363.3	Purulia(I) Division
116	Digha	ORG		Purba Medinipur	1669.6	Contai (I) Division
117	Gopiballavpur	ORG		Jhargram	1535.5	Jhargram Flood Management & Planning Div.
118	Jhalda	ORG		Purulia	1363.3	Purulia(I) Division
119	Sagar Island	AWS	Sundarban Area	South 24 Parganas	2088.0	Dy. Director (Dist. Plan)
120	Salboni	ORG	Tamal	Paschim Medinipur	1535.5	Kangsabati Canal Division-I
121	Tarapheni Barrage	ORG	Tarapheni	Jhargram	1535.5	Kangsabati Canal Division-V
122	Darjeeling	RMC	Teesta	Darjeeling	3118.5	Dy. Director (Dist. Plan)
123	Gangtok	RMC		East Sikkim	2739.0	Dy. Director (Dist. Plan)
124	Jalpaiguri	IMD		Jalpaiguri	3463.3	Jalpaiguri (I) Division
125	Alipurduar	IMD	Torsa	Alipurduar	3463.3	Alipurduar (I) Division
126	Coochbehar	IMD		Coochbehar	3443.7	Coochbehar (I) Division
127	Hasimara	ORG		Alipurduar	3463.3	Alipurduar (I) Division

*ORG: Ordinary Rain Gauge (I&WD); ARG: Automatic Rain Gauge (IMD); AWS: Automatic Weather Station (IMD); RMC: Regional Meteorological Centre (IMD, Kolkata); CWC: Rain Gauge of Central Water Commission.

Annexure –III
B) List of Existing River Gauge Stations under I. & W. Dept.

Sl. No.	River Gauge Station	Name of the River Sub-basin	Danger Level (Metre)	Extreme Danger Level (Metre)	District	Division
1	Budra	Ajoy	39.42	40.34	Purba Bardhaman	Damodar Head Works Division
2	Gheropara		39.42	40.42	Birbhum	Mayurakshi South Canal Division
3	Katwa		14.48	15.04	Purba Bardhaman	EE-II, Damador Canal Division
5	Balurghat	Atrayi	23.15	23.76	Dakshin Dinajpur	South Dinajpur (I) Division
6	Bazarshow	Babla	15.02	15.65	Murshidabad	Mayurakshi South Canal Division
7	Bansloi Rail bridge	Bansloi	31.85	32.76	Birbhum	Mayurakshi North Canal Division
8	Berhampur	Bhagirathi-Hoogly	17.22	17.83	Murshidabad	Berhampur (I) Division
9	Kalna		7.63	8.24	Purba Bardhaman	EE-II, Damador Canal Division
10	Katwa		13.71	14.32	Purba Bardhaman	EE-II, Damador Canal Division
11	Swarupganj		8.44	9.05	Nadia	Nadia (I) Division
12	Jagdhari Road Bridge	Brahmani	33.00	33.40	Birbhum	Mayurakshi North Canal Division
13	Barisha	Chandia	4.55	5.00	Paschim Medinipur	East Midnapur Division
14	Hanskhali	Churni	7.53	8.14	Nadia	Nadia (I) Division
15	Champadanga	Damodar	12.90	13.50	Hooghly	EE-I Lower Damodar (I) Division
16	Edilpur		32.79	32.95	Purba Bardhaman	EE-I Damodar canal division
17	Giara		16.16	16.77	Hooghly	EE-I Lower Damodar (I) Division
18	Jamalpur		23.24	23.54	Purba Bardhaman	EE-I Lower Damodar (I) Division
19	Rondiha		52.13	52.89	Purba Bardhaman	Damodar Head Works Division
20	Chopra	Dauk	69.46	70.07	Uttar Dinajpur	North Dinajpur (I) Division
21	Chengmari	Diana	200.50	201.20	Jalpaiguri	Jalpaiguri (I) Division
22	Khanyadihi	Durbachati	5.03	5.65	Purba Medinipur	East Midnapur Division
23	Arambag	Dwarakeswar	17.22	17.83	Hooghly	Hooghly Irrigation Division
24	Bankura		76.50	77.11	Bankura	Bankura Irrigation Division
25	Patakholia		76.50	77.11	Bankura	Bankura Irrigation Division
26	Shakepore		11.75	12.35	Hooghly	Hooghly Irrigation Division
27	Ranagram	Dwarka	17.36	17.86	Murshidabad	Berhampur (I) Division
28	Sankoghat		20.40	21.30	Murshidabad	Berhampur (I) Division
29	Teljana	Fulhar	27.43	28.35	Malda	Malda (I) Division
30	Itahar	Gamari	26.82	27.41	Uttar Dinajpur	North Dinajpur (I) Division
31	Manikchakghat	Ganga	24.69	25.30	Malda	Malda (I) Division
32	Akheriganj	Ganga-Padma	18.44	19.05	Murshidabad	Berhampur (I) Division
33	Geria		20.94	21.55	Murshidabad	Ganga Anti Erosion Division-I
34	Nimtita		21.90	22.51	Murshidabad	Ganga Anti Erosion Division-I
35	Nurpur		21.03	21.64	Murshidabad	Ganga Anti Erosion Division-I
36	Muchighata	Hurhura khal	6.16	6.77	Howrah	EE-I, Lower Damodar Construction Division
37	RD Setu (Bangaon)	Ichamati	4.70	5.25	North 24 Parganas	Bidyadhari Drainage Division
38	Tentulia		5.10	5.40	North 24 Parganas	Basirhat Irrigation Division
39	Nagrakata	Jaldhaka	160.70	161.80	Jalpaiguri	Jalpaiguri (I) Division
40	NH 31 Crossing		80.10	80.90	Jalpaiguri	Jalpaiguri (I) Division
41	Gaighata	Jamuna	4.45	5.05	North 24 Parganas	Bidyadhari Drainage Division
42	Gobardanga		4.30	4.90	North 24 Parganas	Bidyadhari Drainage Division
43	Amgachia	Kaliaghajai	5.79	6.40	Purba Medinipur	Contai (I) Division
44	Bhakrabad		8.40	8.85	Paschim Medinipur	Kaliaghajai-Kapaleswari-Baghaj Project Div.
45	Dehati		6.55	7.00	Paschim Medinipur	Kaliaghajai-Kapaleswari-Baghaj Project Div.
46	Kalimondop		5.03	5.65	Paschim Medinipur	Kaliaghajai-Kapaleswari-Baghaj Project Div.
47	Alipurduar	Kaljani	45.10	45.70	Alipurduar	Alipurduar (I) Division

Sl. No.	River Gauge Station	Name of the River Sub-basin	Danger Level (Metre)	Extreme Danger Level (Metre)	District	Division
48	Mohanpur	Kangsabati	25.75	26.36	Paschim Medinipur	West Midnapur Division
49	Narayanbarh	Kapaleswari	5.33	5.94	Paschim Medinipur	Kaliaghai-Kapaleswari-Baghai Project Div.
50	Angarpur	Kuia	19.05	20.05	Murshidabad	Mayurakshi South Canal Division
51	Tarapur		22.71	23.35	Murshidabad	Berhampur (I) Division
52	Railway Bridge	Kulick	31.20	32.69	Uttar Dinajpur	North Dinajpur (I) Division
54	Hill Curt Road	Mahananda	115.98	116.59	Darjeeling	Siliguri (I) Division
55	Sonapur		75.77	76.38	Uttar Dinajpur	North Dinajpur (I) Division
56	Mathabhanga	Mansai	47.70	48.20	Coochbehar	Coochbehar (I) Division
57	Majdia	Mathabhanga	7.82	8.43	Nadia	Nadia (I) Division
58	Narayanpur	Mayurakshi	27.99	28.79	Murshidabad	Berhampur (I) Division
59	Makdampur	Nagar	31.54	31.86	Uttar Dinajpur	North Dinajpur (I) Division
60	Dobandi	New Cossye	5.02	5.63	Purba Medinipur	East Midnapur Division
61	Panskura		9.29	9.90	Purba Medinipur	East Midnapur Division
62	Kalmijole	Old Cossye	9.29	9.90	Paschim Medinipur	West Midnapur Division
63	Gangarampur	Punarbhava	25.82	26.42	Dakshin Dinajpur	South Dinajpur (I) Division
64	LRP Crossing	Raidak-I	47.00	47.90	Alipurduar	Alipurduar (I) Division
65	Tufanganj		35.30	35.90	Coochbehar	Coochbehar (I) Division
66	LRP Crossing	Raidak-II	48.40	49.30	Alipurduar	Alipurduar (I) Division
67	Bandar	Rupnarayan	6.85	7.46	Paschim Medinipur	West Midnapur Division
68	Denan		4.42	5.02	Purba Medinipur	East Midnapur Division
69	Gopiganj		5.03	5.65	Paschim Medinipur	West Midnapur Division
70	Ranichak		5.33	5.94	Paschim Medinipur	West Midnapur Division
71	LRP Crossing	Sankosh	48.50	49.40	Alipurduar	Alipurduar (I) Division
72	Banka	Shilabati	15.08	15.69	Paschim Medinipur	West Midnapur Division
73	Gadghat		8.99	9.60	Paschim Medinipur	West Midnapur Division
74	Gopiballavpur	Subarnarekha	45.50	46.50	Jhargram	Jhargram Flood Management & Planning Div.
75	Sonakonia		16.15	16.75	Paschim Medinipur	Contai (I) Division
76	Kachua	Sui	25.49	26.09	Uttar Dinajpur	North Dinajpur (I) Division
77	Pajol		27.43	28.00	Uttar Dinajpur	North Dinajpur (I) Division
78	Bansihari	Tangon	25.60	26.21	Dakshin Dinajpur	South Dinajpur (I) Division
79	Radhikapur		33.45	34.05	Uttar Dinajpur	North Dinajpur (I) Division
80	Coronation Bridge	Teesta	150.00	153.60	Darjeeling	Jalpaiguri (I) Division
81	Domohani		85.95	86.30	Jalpaiguri	Jalpaiguri (I) Division
82	Mekhliganj		150.00	153.00	Coochbehar	Jalpaiguri (I) Division
83	Teesta Bazar*		211.00	213.00	Darjeeling	Jalpaiguri (I) Division
84	Coochbehar	Torsa	42.07	42.68	Coochbehar	Coochbehar (I) Division
85	Hasimara		116.30	117.50	Alipurduar	Alipurduar (I) Division

* Ineffective at present

Annexure –III**C) List of Existing Dam Barrage Monitoring Stations under I. & W. Dept.**

Sl. No.	Dam / Barrage	Name of the River Sub-basin	Conservation / Pond Level (ft.)	Maximum Flood Level (ft.)	District	Division
1	Chandil Dam	Subarnarekha	630.00	630.00	Kolkata	Dy. Director (Dist. Plan)
2	Durgapur Barrage	Damodar	211.50	211.50	Paschim Bardhaman	Damodar Head Works Division
3	Galudih Barrage	Subarnarekha	302.00	332.00	Kolkata	Dy. Director (Dist. Plan)
4	Hinglow Dam	Hinglow	321.00	324.00	Birbhum	Mayurakshi South Canal Division
5	Mahananda Barrage	Mahananda	352.00	352.00	Darjeeling	Mahananda Barrage Division
6	Maithon Dam	Damodar	480.00	495.00	Paschim Bardhaman	Damodar Head Works Division
7	Massanjore Dam	Mayurakshi	398.00	398.00	Birbhum	Mayurakshi Headquarter Division
8	Mukutmonipur Dam	Kangsabati	434.00	440.00	Bankura	Kangsabati Canal Division No.-II
9	Panchet Dam	Damodar	410.00	425.00	Paschim Bardhaman	Damodar Head Works Division
10	Sikatia Barrage	Ajay	558.00	559.70	Kolkata	Dy. Director (Dist. Plan)
11	Teesta Barrage	Teesta	375.00	378.30	Jalpaiguri	Teesta Barrage Division
12	Tenughat Dam	Damodar	852.00	864.00	Paschim Bardhaman	Damodar Head Works Division
13	Tilpara Barrage	Mayurakshi	206.00	206.00	Birbhum	Mayurakshi Headquarter Division

D) List of Existing River Gauge Discharge Stations under I. & W. Dept.

Sl. No.	River Gauge Discharge Station	Name of the River / Channel	Danger Level (Metre)	Extreme Danger Level (Metre)	District	Division
1	Amuliaghat	Ajoy	104.73	105.33	Purba Bardhaman	Burdwan Inv. & Planning Division
2	Amta	Amta Channel	5.64	6.24	Howrah	EE-I, I.& P. Division. (South)
3	Champadanga	Lower Damodar	12.90	13.50	Hooghly	EE-I, I.& P. Division. (South)
4	Kapastikri	Kangsabati	16.00	16.60	Nadia	Dy. Director (Hydraulics)
5	Englishbazar	Mahananda	21.00	21.75	Malda	Malda (I) Division
6	Harinkhola	Mundeswari	12.80	13.41	Paschim Medinipur	EE-I, I.& P. Division. (South)
7	Sehgori	Short Cut Channel	5.10	5.70	Howrah	EE-I, I.& P. Division. (South)

Annexure –III**E) List of Proposed RTDAS Stations under NHP**

Sl.	Rain Gauge Site	River Sub basin	District	Latitude (N)	Longitude E	Sensor	Remarks
1	Banarhat	Jaldhaka	Jalpaiguri	26.794000	89.02525	ARG	
2	Dalkhola	Mahananda	North Dinajpur	25.819648	87.92152	ARG	New Site
3	Karnajora	Kulik	North Dinajpur	25.642981	88.136773	ARG	New Site
4	Balurghat	Atreyee	South Dinajpur	25.24033	88.78315	ARG	
5	Bishnupur	Dwarakeswar	Bankura	23.080000	87.320000	ARG	New Site
6	Indus	Dwarakeswar	Bankura	23.150587	87.621309	ARG	
7	Kenduadihi	Dwarakeswar	Bankura	23.230267	87.050337	ARG	
8	Taldangra	Shilabati	Bankura	22.999655	87.099753	ARG	
9	Shyambati	Kopai	Birbhum	23.694512	87.681606	ARG	
10	Paikar	Pagla	Birbhum	24.432831	87.910331	ARG	
11	Satkahania	Ajay	Paschim Burdwan	23.596498	87.500395	ARG	
12	Memari	Behula	Purba Burdwan	23.173334	88.095281	ARG	
13	Galsi	Damodar	Purba Burdwan	23.344731	87.682500	AWS	
14	Manteswar	Khari	Purba Burdwan	23.306178	88.136978	ARG	New Site
15	Gushkara	Kunur	Purba Burdwan	23.482142	87.720728	ARG	
16	Raina	Mundeswari	Purba Burdwan	23.002687	87.858034	ARG	
17	Champadanga	Damodar	Hooghly	22.836581	87.970381	ARG	
18	Arambag	Dwarakeswar	Hooghly	22.889978	87.779453	ARG	
19	Singur	Ghea	Hooghly	22.820612	88.224939	ARG	
20	Amta	Amta Channel	Howrah	22.572492	88.001253	ARG	
21	Domjur	Saraswati	Howrah	22.649848	88.191212	ARG	
22	Salar	Babla	Murshidabad	23.771800	88.11129	ARG	
23	Kandi	Mayurakshi	Murshidabad	23.951253	88.041917	ARG	
24	Swarupganj	Bhagirathi	Nadia	23.415383	88.390032	ARG	
25	Majdiha	Bhagirathi	Nadia	23.404031	88.712432	ARG	
26	Salt Lake	Bidyadhari	North 24 Parganas	22.590617	88.417589	AWS	New Site
27	Tentulia	Ichamati	North 24 Parganas	22.789750	88.854534	ARG	
28	Hijli	Kaliaghrai	Paschim Medinipur	22.302765	87.303007	ARG	New Site
29	Sabang	Kaliaghrai	Paschim Medinipur	22.173553	87.599134	ARG	
30	Ghatal	Rupnarayan	Paschim Medinipur	22.664131	87.738594	ARG	
31	Amlagora	Shilabati	Paschim Medinipur	22.847276	87.33489	ARG	
32	Chandrakona	Shilabati	Paschim Medinipur	22.732016	87.516456	ARG	New Site
33	Pirorgari	Shilabati	Paschim Medinipur	22.856260	87.001822	ARG	New Site
34	Salboni	Shilabati	Paschim Medinipur	22.642119	87.318483	ARG	New Site
35	Kesiapata	Subarnarekha	Paschim Medinipur	22.208892	87.133575	ARG	
36	Itamogra	Haldi	Purba Medinipur	22.113286	87.945075	ARG	
37	Panskura	Kangsabati	Purba Medinipur	22.395875	87.712793	ARG	
38	Egra	Pichabani	Purba Medinipur	21.900021	87.537202	ARG	New Site
39	Itaberia	Rasulpur	Purba Medinipur	21.998417	87.670433	ARG	New Site
40	Ramchandrapur	Damodar	Purulia	23.586845	86.826762	ARG	New Site
41	Kashipur	Dwarakeswar	Purulia	23.434136	86.667866	ARG	New Site
42	Kenda	Kangsabati	Purulia	23.195514	86.515855	ARG	New Site
43	Tatko	Kangsabati	Purulia	22.929089	86.512748	AWS	New Site
44	Uttarbhag	Sundarban	South 24 Parganas	22.343076	88.514740	ARG	
1	Hinglow Dam	Hinglow	Birbhum	23.822585	87.193983	AWLR with Gate sensor	
2	Kangsabati Dam	Kangsabati	Bankura	22.965221	86.786532	AWLR with Gate sensor	

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Sl.	River Gauge Site	River/ Tributary	District	Latitude (N)	Longitude (E)	Type of site	Sensor	Remarks
1	Alipurduar	Kaljani	Alipurduar	26.480157	89.515881	Road Bridge	Radar	
2	NH-31D Crossing	Mujnai	Alipurduar	26.519988	89.170432	Road Bridge	Radar	New Site
3	Coochbehar	Torsa	Coochbehar	26.285950	89.458847	Road Bridge	Radar	
4	Dharla Aqueduct	Dharla	Jalpaiguri	26.691721	88.736939	Hydraulic Str.	Radar	New Site
5	Hill Curt Road	Mahananda	Darjeeling	26.719813	88.419856	Road Bridge	Radar	
6	Raiganj	Kulik	Uttar Dinajpur	25.619053	88.115633	Road Bridge	Radar	
7	Makdampur	Nagar	Uttar Dinajpur	25.708746	88.046213	Road Bridge	Radar	
8	Balurghat	Atreyee	Dakshin Dinajpur	25.224993	88.776686	Road Bridge	Radar	
9	Gangarampur	Punarbhava	Dakshin Dinajpur	25.405853	88.514005	Road Bridge	Radar	
10	Bansihari	Tangon	Dakshin Dinajpur	25.395988	88.416242	Road Bridge	Radar	
11	Englishbazar	Mahananda	Malda	24.986039	88.147669	Road Bridge	Radar	
12	Bankura	Dwarakeswar	Bankura	23.212857	87.076035	Road Bridge	Radar	New Site
13	Bankura	Gandheswari	Bankura	23.237074	87.084168	Road Bridge	Radar	New Site
14	Illambazar	Ajay	Birbhum	23.615138	87.531678	Road Bridge	Radar	New Site
15	Banslo Road	Banslo	Birbhum	24.479712	87.861192	Road Bridge	Radar	
16	Paikar	Pagla	Birbhum	24.436354	87.898999	Road Bridge	Radar	New Site
17	Katwa	Ajay	Purba Burdwan	23.654644	88.134791	Road Bridge	Radar	
18	Burdwan	Damodar	Purba Burdwan	23.211614	87.848477	Road Bridge	Radar	New Site
19	Randiha Weir	Damodar	Paschim Burdwan	23.372641	87.475325	Hydraulic Str.	Radar	New Site
20	Guskara	Kunur	Purba Burdwan	23.49849	87.7438	Road Bridge	Radar	New Site
21	Champadanga	Damodar	Hooghly	22.840060	87.969621	Road Bridge	Radar	
22	Arambag	Dwarakeswar	Hooghly	22.887077	87.775808	Road Bridge	Radar	
23	Muchighata	Hurhura	Hooghly	22.635565	87.899648	Road Bridge	Radar	New Site
24	Amta	Amta Channel	Howrah	22.573748	87.998360	Road Bridge	Radar	
25	Bakshi	Short Cut	Howrah	22.531268	87.897570	Road Bridge	Radar	New Site
26	Bazarshow	Babla	Murshidabad	23.839826	88.161673	River Bank	Radar	
27	Berhampore	Bhagirathi	Murshidabad	24.100453	88.245508	Road Bridge	Radar	
28	Sankoghat	Dwarka	Murshidabad	24.156715	88.017284	Road Bridge	Radar	
29	Ranagram	Dwarka	Murshidabad	24.016806	88.093360	Road Bridge	Radar	
30	Tarapur	Kuia	Murshidabad	23.839406	87.968376	Road Bridge	Radar	
31	Hanskali	Churni	Nadia	23.355547	88.607073	Road Bridge	Radar	
32	Swarupganj	Hooghly	Nadia	23.385263	88.367727	River Bank	Radar	
33	Krishnanagar	Jalangi	Nadia	23.413683	88.471300	Road Bridge	Radar	New Site
34	Ghusighata	Bidyadhari	North 24 Parganas	22.524207	88.687412	Road Bridge	Radar	New Site
35	Gaighata	Jamuna	North 24 Parganas	22.931127	88.732460	Road Bridge	Radar	
36	Tentulia	Ichamati	North 24 Parganas	22.787288	88.852451	Road Bridge	Radar	
37	Barisha	Chandia	Paschim Medinipur	22.245505	87.703644	Road Bridge	Radar	
38	Khukurdah	Durbachati	Paschim Medinipur	22.473935	87.750782	Road Bridge	Radar	New Site
39	Dehati	Kaliaghrai	Paschim Medinipur	22.090965	87.495089	Road Bridge	Radar	
40	Sal Dahari	Kangsabati	Paschim Medinipur	22.488876	87.558162	River Bank	Radar	New Site
41	Khirpai	Ketia	Paschim Medinipur	22.720523	87.602071	Road Bridge	Radar	New Site
42	Kapastikri	Old Cossye	Paschim Medinipur	22.498421	87.558884	River Bank	Radar	New Site
43	Tabageria	New Cossye	Paschim Medinipur	22.484145	87.579123	River Bank	Radar	New Site
44	Goura	Palashploi	Paschim Medinipur	22.527944	87.746223	Road Bridge	Radar	New Site
45	Bandar	Rupnarayan	Paschim Medinipur	22.664589	87.783971	River Bank	Radar	
46	Banka	Shilabati	Paschim Medinipur	22.727636	87.577081	Road Bridge	Radar	
47	Garhbeta	Shilabati	Paschim Medinipur	22.886163	87.361286	Road Bridge	Radar	New Site
48	Ghatal	Shilabati	Paschim Medinipur	22.661713	87.731618	Road Bridge	Radar	New Site
49	Narghat	Haldi	Purba Medinipur	22.135447	87.890932	Road Bridge	Radar	New Site
50	Moyna	New Cossye	Purba Medinipur	22.248224	87.798520	Road Bridge	Radar	New Site
51	Panskura	New Cossye	Purba Medinipur	22.395875	87.712793	Road Bridge	Radar	
52	Kalinagar	Rasulpur	Purba Medinipur	21.916866	87.786026	Road Bridge	Radar	New Site
53	Petuaghata	Rasulpur	Purba Medinipur	21.795455	87.881636	River Bank	Radar	New Site
54	Budhpur	Cossye	Purulia	23.105106	86.661912	Road Bridge	Radar	New Site
55	Dabra	Kumari	Purulia	23.047784	86.561858	Road Bridge	Radar	New Site
56	Diamond harbour	Hooghly	South 24-Pargans	22.193544	88.181347	River Bank	Radar	New Site

Annexure –III**F) List of Proposed Dam Barrage RTDAS Stations under NHP**

Sl.	Name of the Site	River/ Tributary	District	Latitude (N)	Longitude (E)	Sensor Type(s)
1	Saharajore Dam	Saharajore	Purulia	23.3162417	86.0542556	AWLR ARG
2	Kumari Dam	Kumari	Purulia	23.1564778	86.2846111	AWLR ARG
3	Tatko Dam	Tatko	Purulia	22.92900556	86.51275278	AWLR
4	Barabhum Dam	Kerro	Purulia	23.0320306	86.3087611	AWLR ARG
5	Hanumata Dam	Hanumata	Purulia	23.1105694	86.2643167	AWLR
6	Kestobazar Dam	Kistobazar	Purulia	23.182721	86.086156	AWLR
7	Tara Dam	Tara	Purulia	23.2433778	86.3486806	AWLR ARG
8	Sankha Dam	Sankha	Purulia	23.123191	86.15222	AWLR
9	Fakidih Dam	Nimijore	Purulia	23.340085	85.941618	AWLR
10	Parga Dam	Parga	Purulia	23.4376556	86.0820278	AWLR ARG
11	Buridumur Dam	Buridumur	Purulia	23.308984	86.103979	AWLR ARG
12	Golamarajore Dam	Golamarajore	Purulia	23.4274444	86.3650667	AWLR ARG
13	Patloj Dam	Patloj	Purulia	23.3622583	86.4838472	AWLR
14	Dimu Dam	Dimu	Purulia	23.424883	85.980239	AWLR
15	Turga Dam	Turga	Purulia	23.1978917	86.0626389	AWLR ARG
16	Khairabera Dam	Khairabera	Purulia	23.2637361	86.0052861	AWLR AWS
17	Dangra Dam	Dangra	Purulia	23.4529111	86.7832278	AWLR ARG
18	Majra Dam	Majrajore	Purulia	23.386448	86.62844	AWLR
19	Bandajore Dam	Bandajore	Purulia	23.603415	86.560724	AWLR ARG
20	Fuljore Dam	Fuljore	Purulia	23.233175	86.2290472	AWLR
21	Taragonia Dam	Taragoniajore	Purulia	23.4780083	86.3875889	AWLR
22	Moutorejore Dam	Moutorejore	Purulia	23.5801778	86.5870222	AWLR ARG
23	Lipaniajore Dam	Lipaniajore	Purulia	23.4669528	86.4601111	AWLR AWS
24	Futiary Dam	Futiary	Purulia	23.3845583	86.5672833	AWLR
25	Beko Dam	Beko	Purulia	23.4778389	86.6286056	AWLR ARG
26	Ramchandrapur Dam	Muchkunda	Purulia	23.5876167	86.8376778	AWLR
27	Rupai Dam	Rupai	Purulia	23.3100083	85.9213306	AWLR
28	Karrior Dam	Karrior	Purulia	23.4251222	85.9456861	AWLR
29	ExtnBandhu Dam	Bandhu	Purulia	23.302029	86.195946	AWLR ARG
30	Kansai Dam	Kansai	Purulia	23.4188278	86.0302	AWLR
31	Sali Dam	Sali	Bankura	23.4054333	87.0853889	AWLR ARG
32	Maliarajore Dam	Maliarajore	Bankura	23.4494611	87.19975	AWLR ARG
33	Puinala Dam	Puinala	Paschim Bardhaman	23.775587	86.971121	AWLR
34	Bara Mandira Dam	Baramandira	Paschim Bardhaman	23.832875	86.9544111	AWLR
35	Nachan Dam	Nachan	Paschim Bardhaman	23.6172611	87.3215056	AWLR
36	Deocha Barrage	Dwarka	Birbhum	24.040025	87.59495	AWLR
37	Baidhara Barrage	Brahmani	Birbhum	24.251252	87.739034	AWLR ARG
38	Kultore Barrage	Kopai	Birbhum	23.728264	87.506661	AWLR AWS
39	Khanpur Barrage	Kuye	Birbhum	23.8048611	87.8970278	AWLR
40	Uparkhara Barrage	Kana Ajay	Birbhum	23.6150306	87.7457083	AWLR
41	Kadamdeuli Barrage	Shilabati	Bankura	23.1013028	86.8634528	AWLR
42	Bhairab Banki Barrage	Bhairab Banki	Bankura	22.764825	86.8245083	AWLR AWS
43	Tarafeni Barrage	Tarafeni	Jhargram	22.6718889	86.792675	AWLR ARG
44	Mahananda Barrage	Mahananda	Jalpaiguri	26.645126	88.400538	AWLR ARG
45	Karatowa Talma Barrage	Karatowa	Jalpaiguri	26.639125	88.496803	AWLR
46	Dauk Barrage	Dauk	Uttar Dinajpur	26.401805	88.376217	AWLR
47	Berai Weir	Berai	Bankura	23.092564	87.176453	AWLR

Annexure IV-A: Districtwise Monthly Rainfall Statistics of West Bengal for the Year 2020

Month \ District	January			February			March			April		
	Rainfall in mm			Rainfall in mm			Rainfall in mm			Rainfall in mm		
	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep
Coochbehar	0.3	8.2	-96.3%	10.9	15.3	-28.8%	33.0	35.8	-7.8%	116.4	148.5	-21.6%
Darjeeling (including Kalimpong)	31.9	15.4	107.1%	40.9	21.6	89.4%	62.2	40.4	54.0%	124.0	127.2	-2.5%
Jalpaiguri (including Alipurduar)	4.8	8.6	-44.2%	31.2	22.2	40.5%	54.6	48.3	13.0%	159.9	159.1	0.5%
Malda	8.3	10.7	-22.4%	35.1	11.3	210.6%	49.0	14.1	247.5%	77.8	39.7	96.0%
North Dinajpur	3.1	8.3	-62.7%	24.4	7.5	225.3%	26.7	5.8	360.3%	129.9	28.5	355.8%
South Dinajpur	5.2	8.7	-40.2%	22.4	12.9	73.6%	34.3	18.5	85.4%	108.3	57.8	87.4%
North Bengal calculated mean	8.9	10.0	-10.5%	27.5	15.1	81.6%	43.3	27.2	59.5%	119.4	93.5	27.7%
Bankura	24.5	14.6	67.8%	0.3	14.9	-98.0%	65.9	25.4	159.4%	113.2	46.5	143.4%
Birbhum	22.0	10.8	103.7%	0.8	17.9	-95.5%	41.5	25.3	64.0%	62.0	40.4	53.5%
Burdwan (Purba & Paschim)	26.6	9.5	180.0%	1.1	17.3	-93.6%	64.6	21.4	201.9%	65.8	37.4	75.9%
East Midnapore	49.6	15.9	211.9%	10.5	22.5	-53.3%	30.2	36.2	-16.6%	71.4	52	37.3%
Hooghly	29.1	11.6	150.9%	2.3	25.3	-90.9%	63.1	28.5	121.4%	50.8	51.6	-1.6%
Howrah	22.6	12.9	75.2%	1.6	21.6	-92.6%	22.3	32.7	-31.8%	0.0	53.8	-100.0%
Kolkata	42.5	15.4	176.0%	3.5	22.7	-84.6%	39.4	35	12.6%	49.0	56.1	-12.7%
Murshidabad	18.5	9	105.6%	6.5	15.6	-58.3%	17.8	20	-11.0%	79.1	54.2	45.9%
Nadia	25.9	10.1	156.4%	2.1	14.4	-85.4%	47.4	21.9	116.4%	12.4	50.9	-75.6%
North 24 Parganas	36.7	13.1	180.2%	4.4	21.6	-79.6%	83.8	35.2	138.1%	115.8	56.4	105.3%
Purulia	44.4	15.3	190.2%	2.9	22.3	-87.0%	61.6	26.4	133.3%	58.2	37.9	53.6%
South 24 Parganas	47.4	13.6	248.5%	6.7	25.4	-73.6%	26.8	39.3	-31.8%	59.0	52.2	13.0%
West Midnapore (including Jhargram)	41.6	11.9	249.6%	11.3	22.9	-50.7%	62.6	39.1	60.1%	113.8	64.3	77.0%
South Bengal calculated mean	33.2	12.6	163.5%	4.2	20.3	-79.6%	48.2	29.7	62.3%	65.4	50.3	30.1%
West Bengal as State	28.1	11.8	138.1%	10.6	19.3	-45.1%	48.9	30.2	61.9%	88.5	63.2	40.0%
State Total	485.0	223.6	116.9%	218.9	355.2	-38.4%	886.8	549.3	61.4%	1566.8	1214.5	29.0%

*Data source: IMD-RMC, Kolkata

Annexure IV-A: Districtwise Monthly Rainfall Statistics of West Bengal for the Year 2020

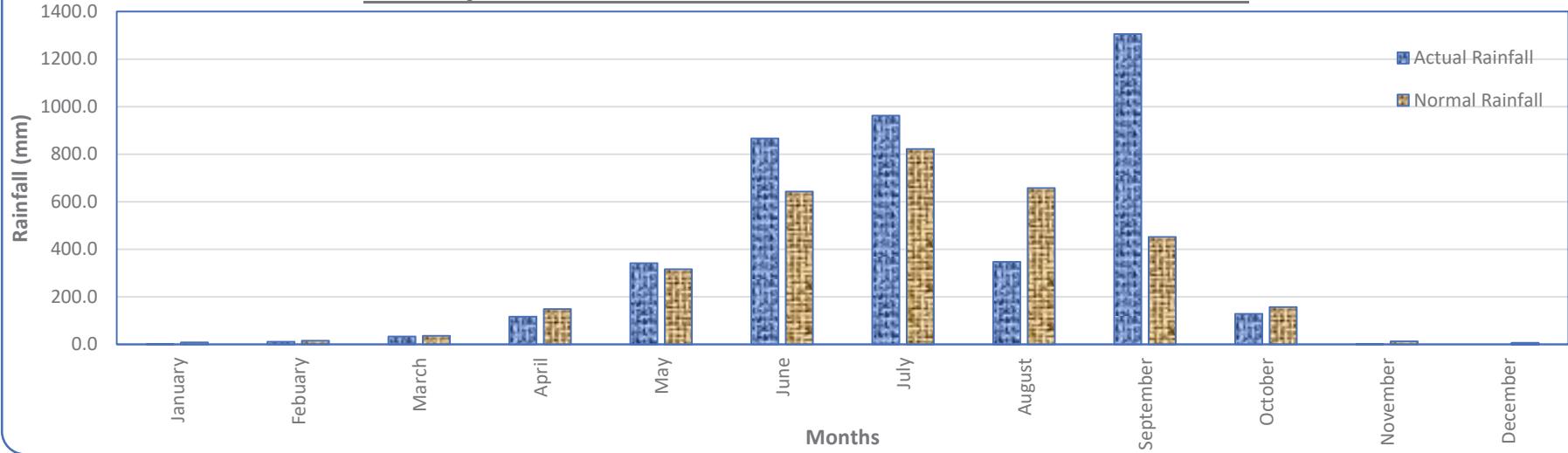
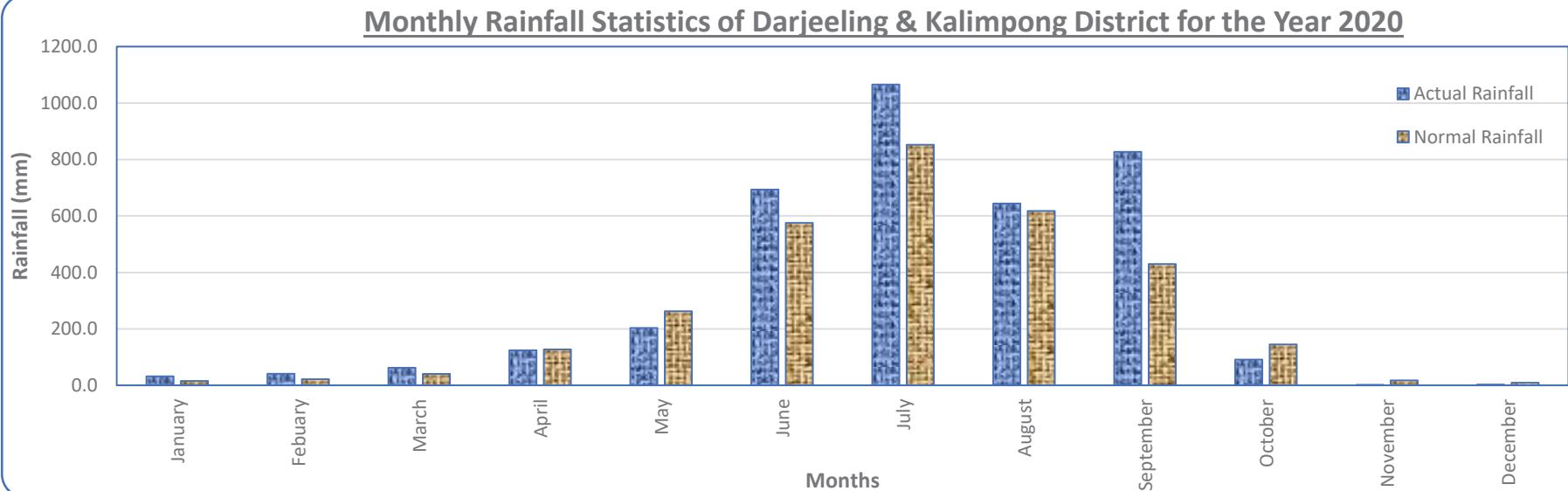
District	Month	May			June			July			August		
		Rainfall in mm			Rainfall in mm			Rainfall in mm			Rainfall in mm		
		Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep
Coochbehar	341.4	316	8.0%	866.1	642.7	34.8%	962.1	821.8	17.1%	347.0	657.4	-47.2%	
Darjeeling (including Kalimpong)	203.2	262.4	-22.6%	693.5	575.4	20.5%	1065.6	852.2	25.0%	644.0	617.6	4.3%	
Jalpaiguri (including Alipurduar)	353.3	325.1	8.7%	971.7	721.1	34.8%	1516.8	959.9	58.0%	605.0	666.5	-9.2%	
Malda	137.4	106.9	28.5%	361.9	223.3	62.1%	346.5	335.2	3.4%	217.4	272.8	-20.3%	
North Dinajpur	152.9	214.4	-28.7%	350.2	326.1	7.4%	503.0	433.5	16.0%	219.1	366	-40.1%	
South Dinajpur	336.8	161.6	108.4%	294.3	286.9	2.6%	430.9	364.3	18.3%	120.8	243.1	-50.3%	
North Bengal calculated mean	254.2	231.1	10.0%	589.6	462.6	27.5%	804.2	627.8	28.1%	358.9	470.6	-23.7%	
Bankura	180.3	75.9	137.5%	325.4	247.9	31.3%	286.8	342.1	-16.2%	342.3	319.2	7.2%	
Birbhum	185.6	92.3	101.1%	278.6	237.7	17.2%	362.1	331.4	9.3%	304.7	314.7	-3.2%	
Burdwan (Purba & Paschim)	171.9	70.8	142.8%	298.4	217.4	37.3%	338.2	279.9	20.8%	262.2	275.3	-4.8%	
East Midnapore	431.0	104.6	312.0%	209.5	278.2	-24.7%	171.6	340.4	-49.6%	403.6	346.4	16.5%	
Hooghly	214.5	101.1	112.2%	272.4	248	9.8%	279.3	299.3	-6.7%	317.6	259.6	22.3%	
Howrah	392.2	118.2	231.8%	210.7	234.3	-10.1%	247.1	344.4	-28.3%	349.3	324.6	7.6%	
Kolkata	382.6	119.9	219.1%	381.9	287.5	32.8%	348.2	376.7	-7.6%	389.7	349.2	11.6%	
Murshidabad	149.6	117.9	26.9%	324.4	221.8	46.3%	357.9	317.6	12.7%	226.0	263.4	-14.2%	
Nadia	225.0	107.7	108.9%	212.4	207.1	2.6%	309.7	273.9	13.1%	281.8	214.8	31.2%	
North 24 Parganas	305.5	132.7	130.2%	400.2	293.4	36.4%	337.5	334.8	0.8%	394.0	340.7	15.6%	
Purulia	126.2	64.4	96.0%	266.6	240.9	10.7%	278.8	287.7	-3.1%	315.8	307.4	2.7%	
South 24 Parganas	290.1	134	116.5%	271.9	323.9	-16.1%	214.0	444.3	-51.8%	443.8	386.4	14.9%	
West Midnapore (including Jhargram)	261.8	112.2	133.3%	240.3	257.5	-6.7%	217.4	329.3	-34.0%	368.9	326.6	13.0%	
South Bengal calculated mean	255.1	104.0	145.3%	284.1	253.5	12.0%	288.4	330.9	-12.9%	338.4	309.9	9.2%	
West Bengal as State	240.8	137.2	75.5%	371.1	316.7	17.2%	433.0	419.8	3.1%	355.7	361	-1.5%	
State Total	4841.3	2738.1	76.8%	7230.4	6071.1	19.1%	8573.5	8068.7	6.3%	6553.0	6851.7	-4.4%	

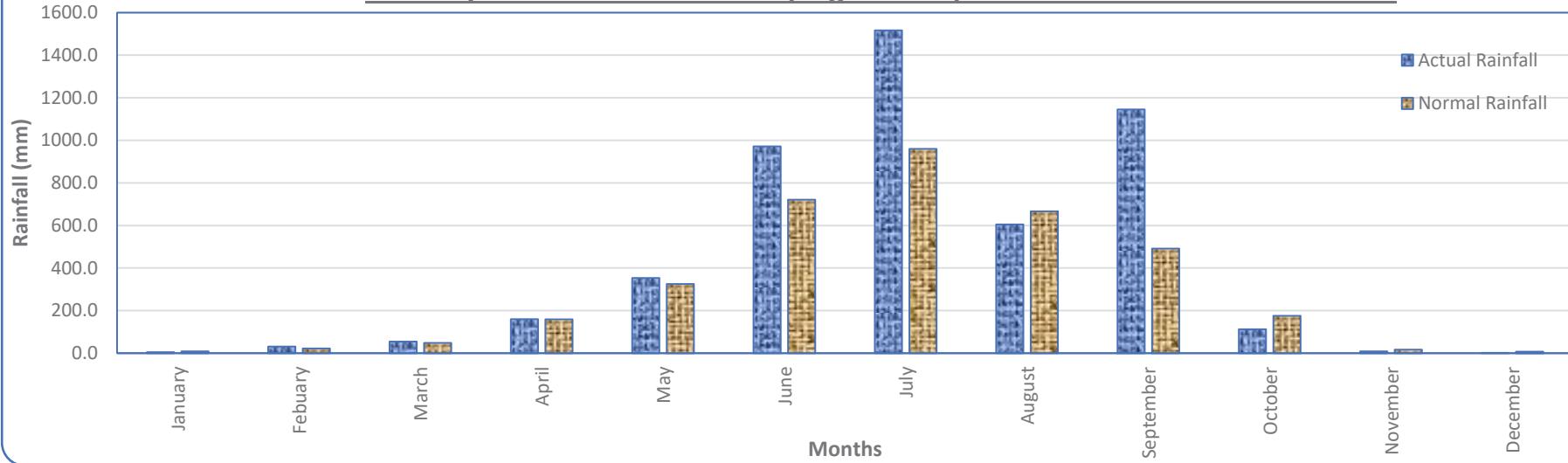
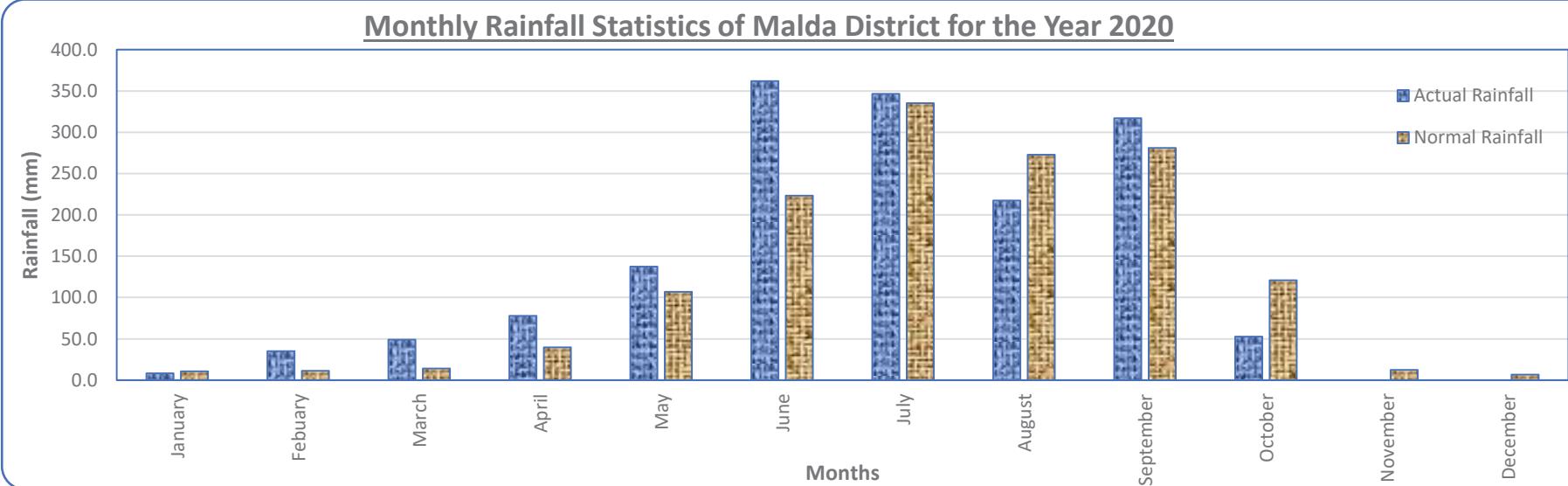
*Data source: IMD-RMC, Kolkata

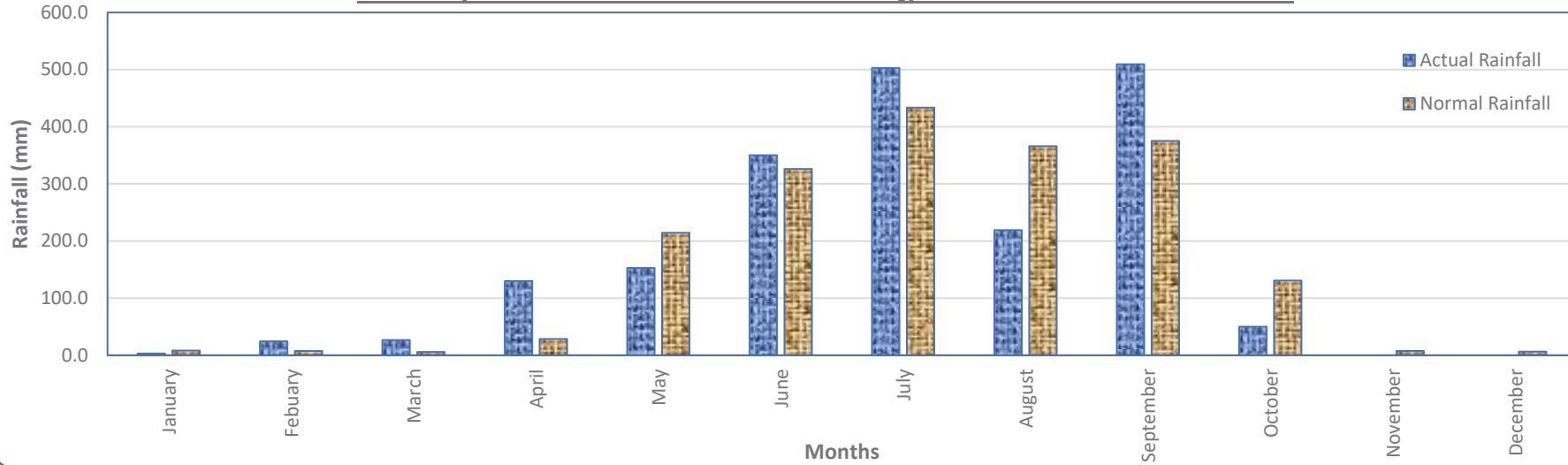
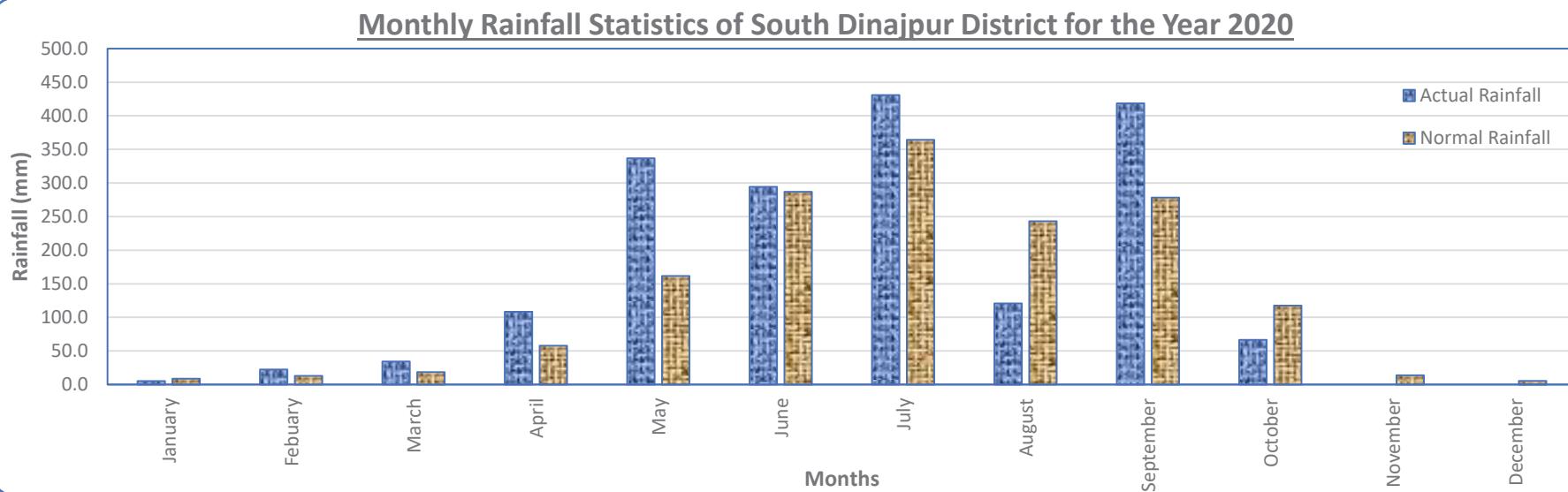
Annexure IV-A: Districtwise Monthly Rainfall Statistics of West Bengal for the Year 2020

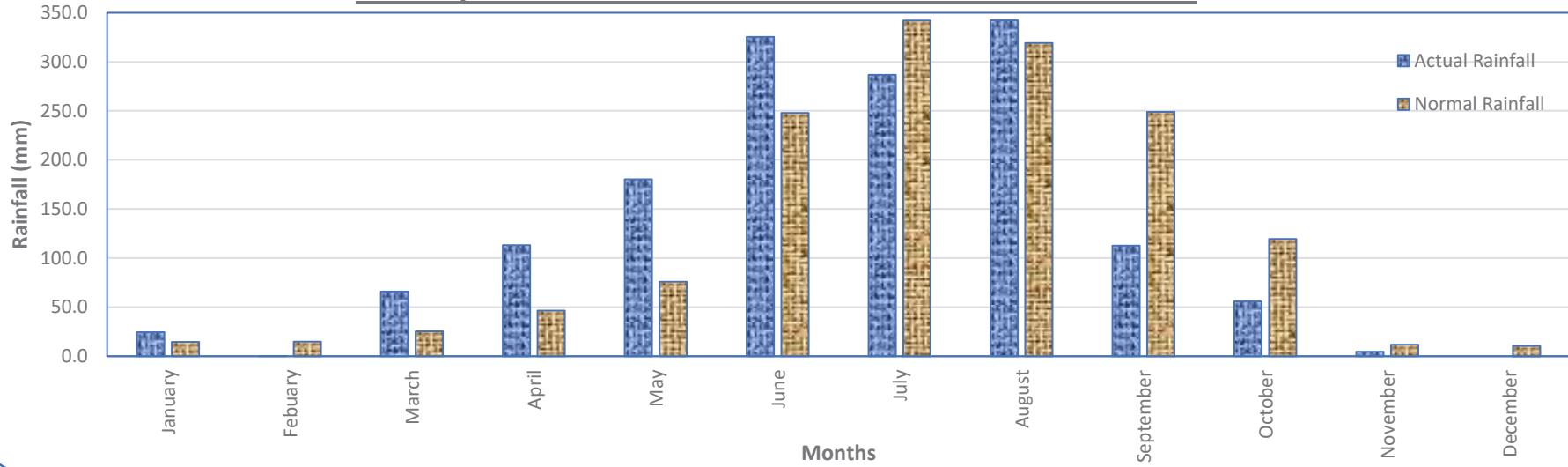
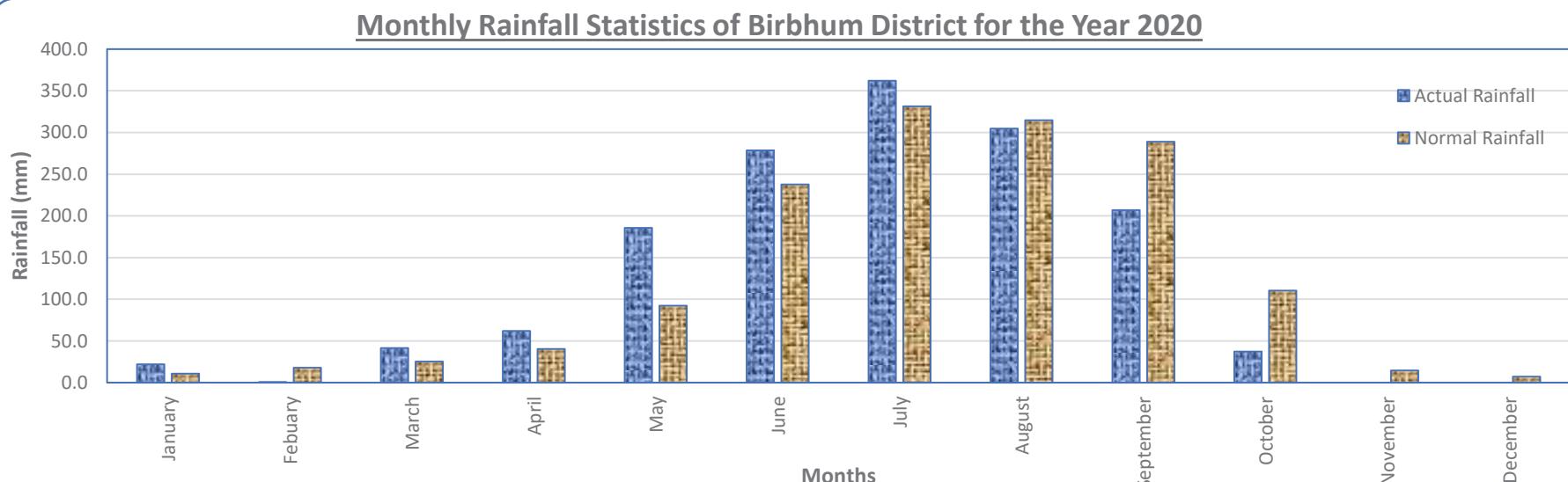
District	Month	September			October			November			December		
		Rainfall in mm			Rainfall in mm			Rainfall in mm			Rainfall in mm		
		Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep
Coochbehar	1305.1	451.7	189	128.3	156.8	-18.2%	0.3	12.6	-97.6%	0.0	6.5	-100.0%	
Darjeeling (including Kalimpong)	827.0	429.7	92	91.2	144.8	-37.0%	1.8	17.4	-89.7%	2.8	9.2	-69.6%	
Jalpaiguri (including Alipurduar)	1145.1	491.5	133	112.4	175.6	-36.0%	8.6	16.7	-48.5%	1.7	7.2	-76.4%	
Malda	317.0	281	13	52.7	120.9	-56.4%	0.0	12.4	-100.0%	0.0	6.7	-100.0%	
North Dinajpur	509.5	375.2	36	50.0	130.8	-61.8%	0.0	7.6	-100.0%	0.0	6.4	-100.0%	
South Dinajpur	418.6	278.3	50	66.5	117.5	-43.4%	0.0	13.8	-100.0%	0.0	5.4	-100.0%	
North Bengal calculated mean	753.7	384.6	96.0%	83.5	141.1	-40.8%	1.8	13.4	-86.7%	0.8	6.9	-89.1%	
Bankura	112.7	249	-55	55.9	119.5	-53.2%	4.6	11.8	-61.0%	0.0	10.5	-100.0%	
Birbhum	206.9	288.9	-28	37.3	110.4	-66.2%	0.0	14.6	-100.0%	0.0	7.2	-100.0%	
Burdwan (Purba & Paschim)	128.2	225.7	-43	81.0	99.5	-18.6%	1.7	6.6	-74.2%	0.0	5	-100.0%	
East Midnapore	219.4	340.7	-36	217.2	166	30.8%	3.8	38.9	-90.2%	0.0	6.7	-100.0%	
Hooghly	93.1	240.1	-61	101.1	112	-9.7%	1.7	16.4	-89.6%	0.0	8	-100.0%	
Howrah	135.2	293.5	-54	57.8	126.2	-54.2%	0.0	29.2	-100.0%	0.0	8.9	-100.0%	
Kolkata	189.1	312.7	-40	107.0	159.8	-33.0%	24.0	28.2	-14.9%	0.0	9.4	-100.0%	
Murshidabad	227.5	263.7	-14	48.0	127.5	-62.4%	1.0	11.4	-91.2%	0.0	5.4	-100.0%	
Nadia	117.0	202.1	-42	68.3	97.8	-30.2%	1.3	10.5	-87.6%	0.0	5.9	-100.0%	
North 24 Parganas	162.7	300.3	-46	51.9	149.2	-65.2%	16.8	26.6	-36.8%	0.0	8.5	-100.0%	
Purulia	197.7	258.6	-24	58.3	93.4	-37.6%	3.6	15.6	-76.9%	0.7	8.9	-92.1%	
South 24 Parganas	220.7	349.4	-37	103.9	186.7	-44.3%	1.5	51.5	-97.1%	0.0	8.9	-100.0%	
West Midnapore (including Jhargram)	134.3	271.1	-50	84.0	113.9	-26.3%	10.8	15.5	-30.3%	0.0	5.4	-100.0%	
South Bengal calculated mean	165.0	276.6	-40.4%	82.4	127.8	-35.5%	5.4	21.3	-74.4%	0.1	7.6	-99.3%	
West Bengal as State	327.2	307.5	6	82.9	132.3	-37.3%	4.0	19.5	-79.5%	0.3	7.3	-95.9%	
State Total	6666.8	5903.2	12.9%	1572.8	2508.3	-37.3%	81.5	357.3	-77.2%	5.2	140.1	-96.3%	

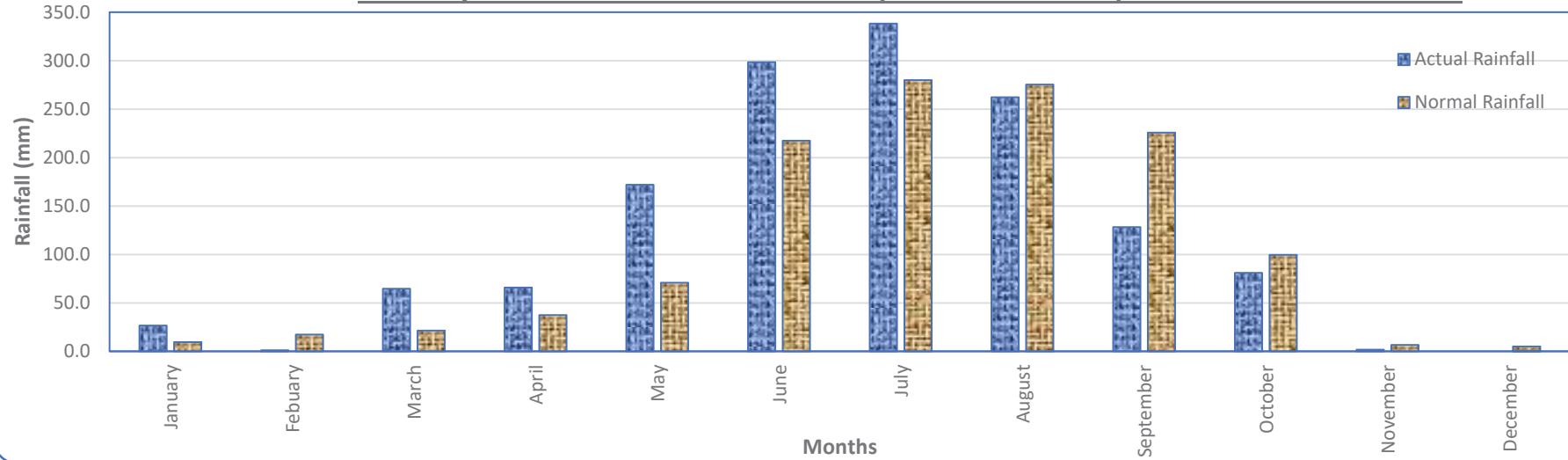
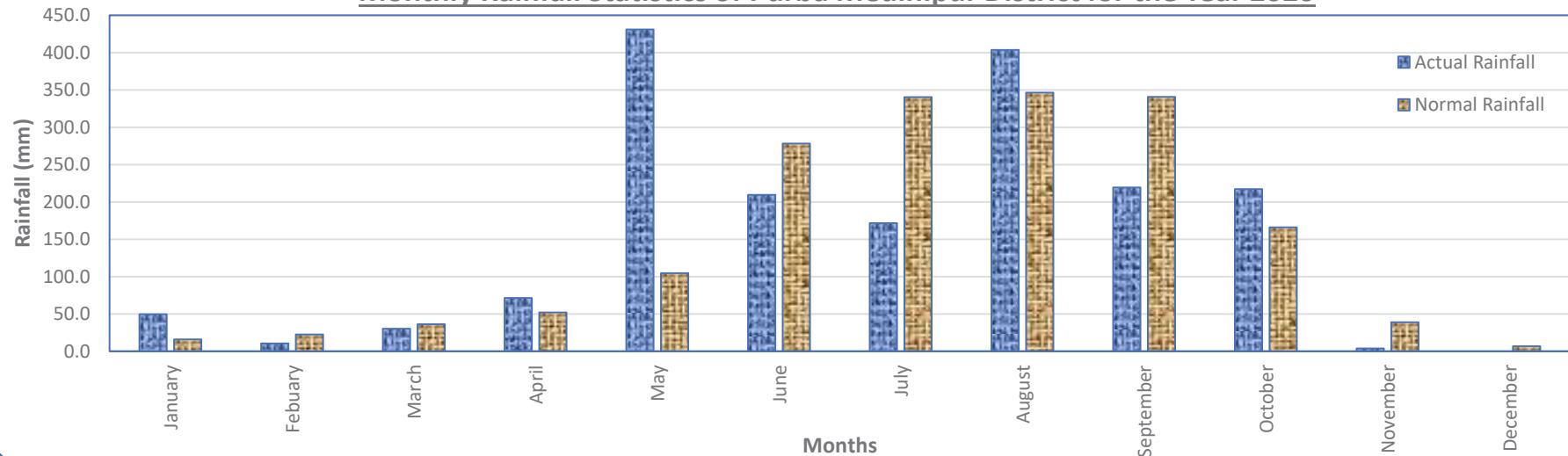
*Data source: IMD-RMC, Kolkata

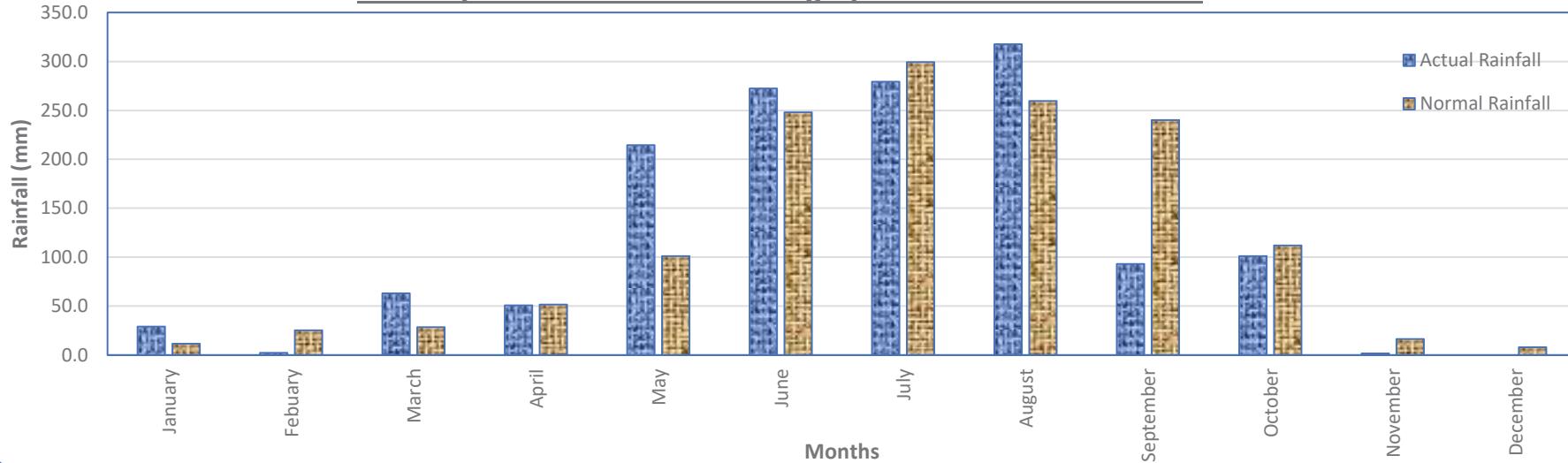
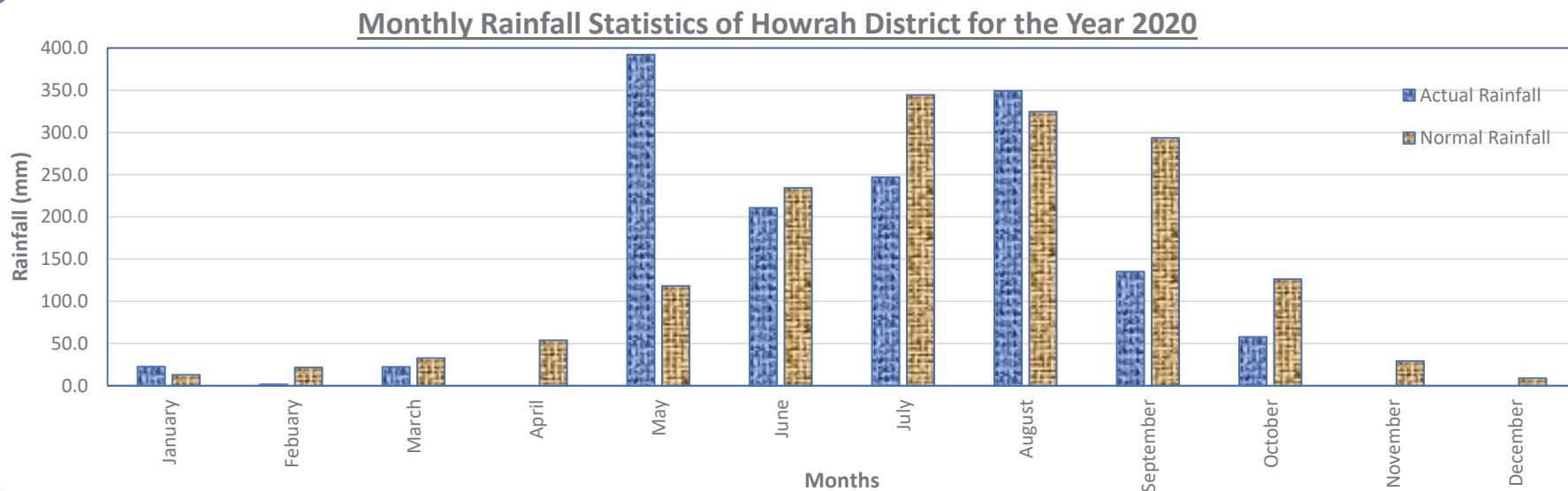
Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Coochbehar District for the Year 2020****Monthly Rainfall Statistics of Darjeeling & Kalimpong District for the Year 2020**

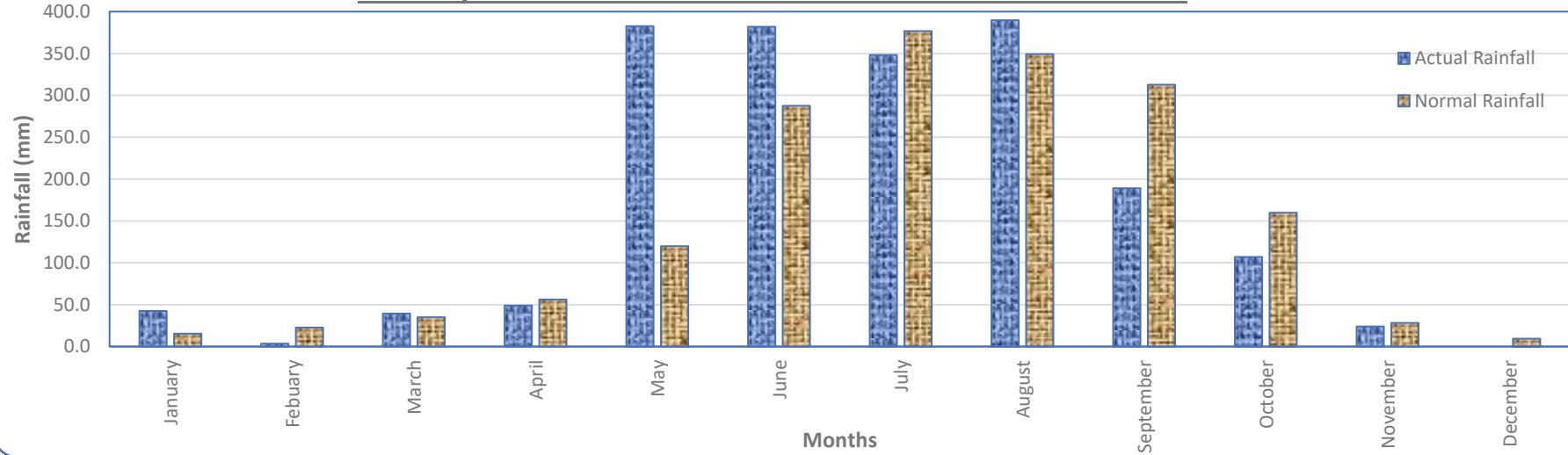
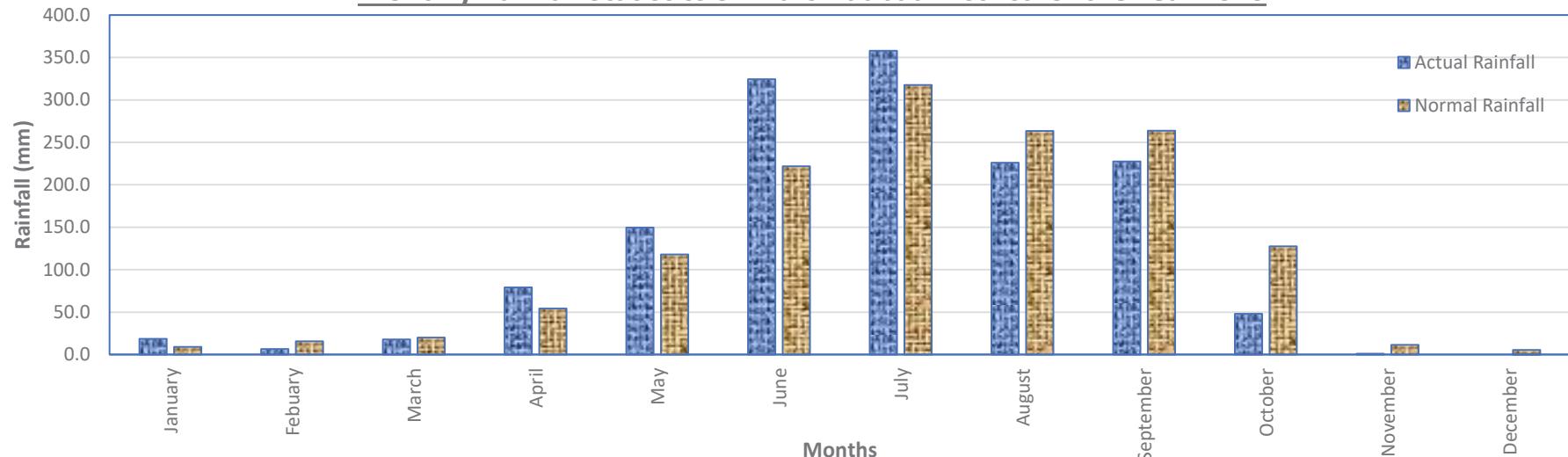
Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Jalpaiguri & Alipurduar District for the Year 2020****Monthly Rainfall Statistics of Malda District for the Year 2020**

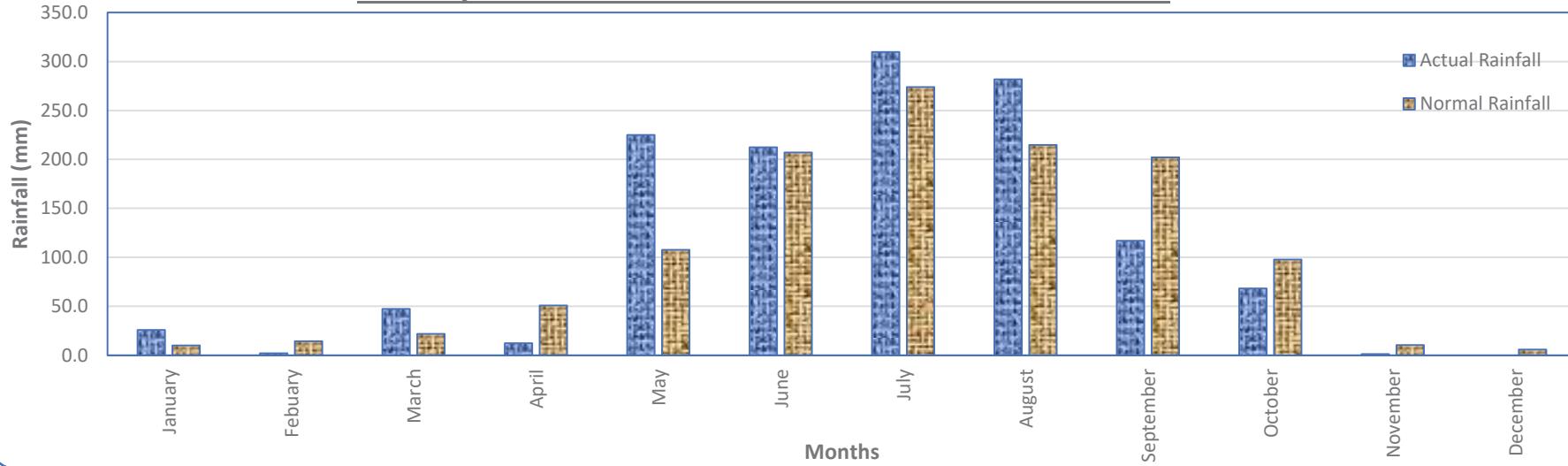
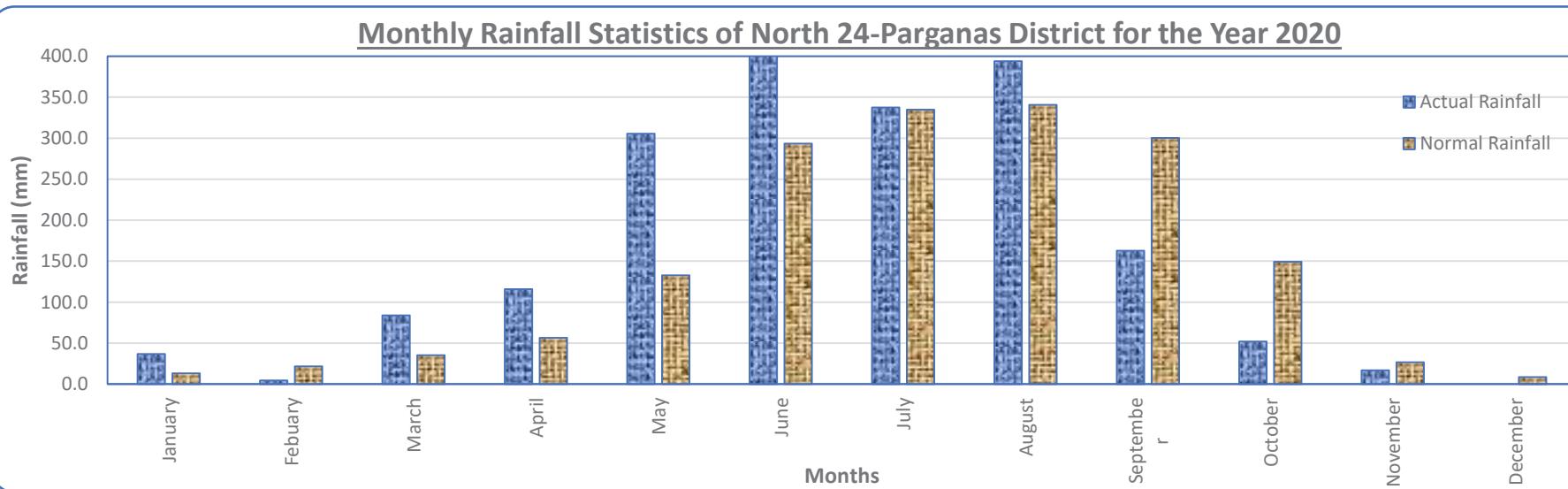
Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of North Dinajpur District for the Year 2020****Monthly Rainfall Statistics of South Dinajpur District for the Year 2020**

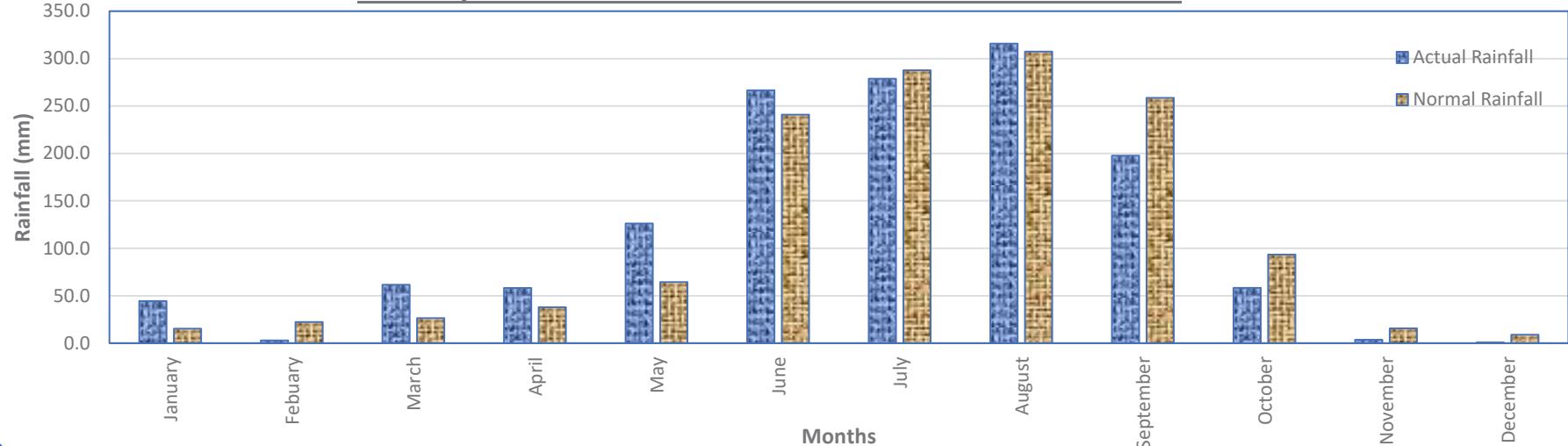
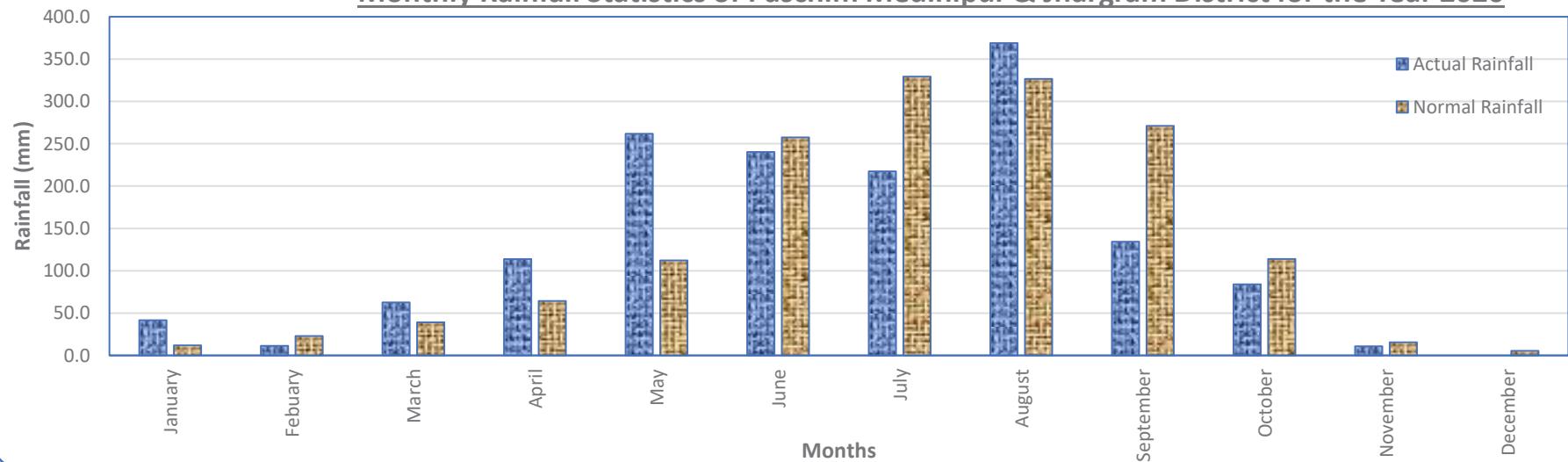
Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Bankura District for the Year 2020****Monthly Rainfall Statistics of Birbhum District for the Year 2020**

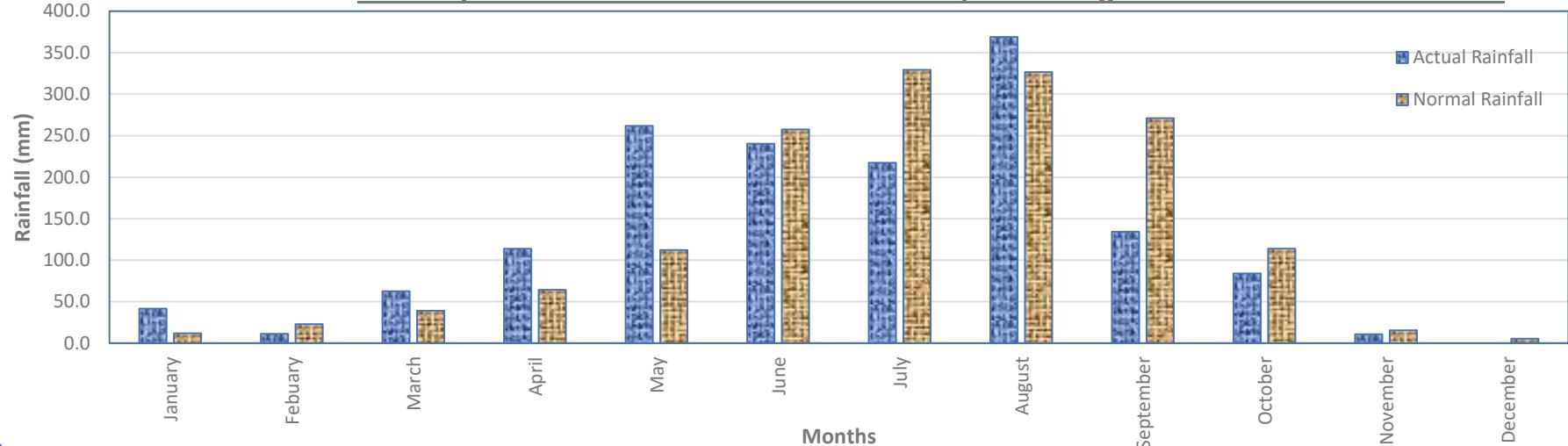
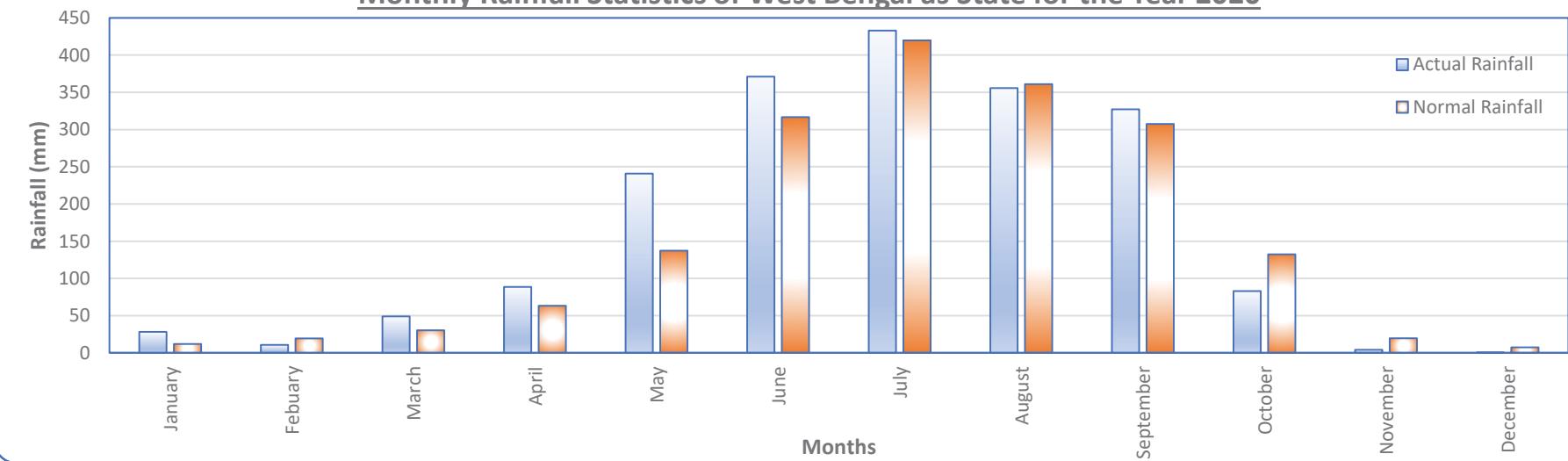
Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Burdwan (Purba & Paschim) District for the Year 2020****Monthly Rainfall Statistics of Purba Medinipur District for the Year 2020**

Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Hooghly District for the Year 2020****Monthly Rainfall Statistics of Howrah District for the Year 2020**

Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Kolkata District for the Year 2020****Monthly Rainfall Statistics of Murshidabad District for the Year 2020**

Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Nadia District for the Year 2020****Monthly Rainfall Statistics of North 24-Parganas District for the Year 2020**

Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Purulia District for the Year 2020****Monthly Rainfall Statistics of Paschim Medinipur & Jhargram District for the Year 2020**

Annexure IV-B: Graphical Representation of Monthly Rainfall Statistics at different Districts of West Bengal (after IMD, Kolkata)**Monthly Rainfall Statistics of Paschim Medinipur & Jhargram District for the Year 2020****Monthly Rainfall Statistics of West Bengal as State for the Year 2020**

Annexure-V: Season-wise Average Rainfall Statistics of West Bengal for the Year 2020

Seasonal Rainfall (mm)	Winter Avg. Rainfall			Pre-Monsoon Avg. Rainfall			Monsoon Avg. Rainfall			Post-Monsoon Avg. Rainfall			Annual Average Rainfall		
	(1st January to 28th February)			(1st March to 31st May)			(1st June to 30th September)			(1st October to 31st December)			(1st January to 31st December)		
	Districts	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal	% Dep	Actual	Normal
Coochbehar	11.3	23.5	-51.9%	539.6	513.3	5.1%	3480.3	2573.6	35.2%	128.7	175.9	-26.8%	4159.90	3286.30	26.6%
Darjeeling (including Kalimpong)	72.8	37	96.8%	358.2	441	-18.8%	3230	2474.9	30.5%	95.8	171.4	-44.1%	3756.80	3124.30	20.2%
Jalpaiguri (including Alipurduar)	36	30.8	16.9%	593	547.1	8.4%	4238.6	2839	49.3%	122.7	199.5	-38.5%	4990.30	3616.40	38.0%
Malda	43.4	22	97.3%	276.5	168.3	64.3%	1242.8	1112.3	11.7%	52.8	140	-62.3%	1615.50	1442.60	12.0%
North Dinajpur	27.5	15.8	74.1%	389.2	251	55.1%	1581.7	1500.8	5.4%	50	144.8	-65.5%	2048.40	1912.40	7.1%
South Dinajpur	27.5	21.6	27.3%	464.5	244.9	89.7%	1264.6	1172.6	7.8%	66.5	136.7	-51.4%	1823.10	1575.80	15.7%
North Bengal calculated mean	36.42	25.12	45.0%	436.83	360.93	21.0%	2506.33	1945.53	28.8%	86.08	161.38	-46.7%	3065.67	2492.97	23.0%
Bankura	24.8	29.5	-15.9%	364.5	149.9	143.2%	1067.2	1158.2	-7.9%	60.6	141.8	-57.3%	1517.10	1479.40	2.5%
Birbhum	22.8	28.7	-20.6%	302.7	161.3	87.7%	1152.4	1172.7	-1.7%	37.3	132.2	-71.8%	1515.20	1494.90	1.4%
Burdwan (Purba & Paschim)	27.7	26.8	3.4%	344	132	160.6%	1027.1	998.3	2.9%	82.6	111.1	-25.7%	1481.40	1268.20	16.8%
East Midnapore	60.1	38.4	56.5%	538.3	194.8	176.3%	1004.1	1305.7	-23.1%	221	211.6	4.4%	1823.50	1750.50	4.2%
Hooghly	31.4	36.9	-14.9%	397	186.5	112.9%	962.4	1047	-8.1%	102.8	136.4	-24.6%	1493.60	1406.80	6.2%
Howrah	24.2	34.5	-29.9%	414.5	208.4	98.9%	942.3	1196.8	-21.3%	57.8	164.3	-64.8%	1438.80	1604.00	-10.3%
Kolkata	46	38.1	20.7%	472.1	216	118.6%	1308.9	1326.1	-1.3%	131	197.4	-33.6%	1958.00	1777.60	10.1%
Murshidabad	25	24.6	1.6%	288.1	197.8	45.7%	1135.9	1066.5	6.5%	49	144.3	-66.0%	1498.00	1433.20	4.5%
Nadia	27.9	24.5	13.9%	326.9	186.7	75.1%	920.9	897.9	2.6%	69.6	114.2	-39.1%	1345.30	1223.30	10.0%
North 24 Parganas	41.1	34.7	18.4%	503.8	230.5	118.6%	1294.3	1269.2	2.0%	68.7	184.3	-62.7%	1907.90	1718.70	11.0%
Purulia	47.3	37.6	25.8%	288.2	130.9	120.2%	1058.9	1094.6	-3.3%	62.6	117.9	-46.9%	1457.00	1381.00	5.5%
South 24 Parganas	54.1	39	38.7%	369.7	228.2	62.0%	1150.4	1504	-23.5%	105.4	247.1	-57.3%	1679.60	2018.30	-16.8%
West Midnapore (including Jhargram)	52.8	34.8	51.7%	454.1	219.4	107.0%	960.9	1184.5	-18.9%	94.7	134.8	-29.7%	1562.50	1573.50	-0.7%
South Bengal calculated mean	37.3	32.9	13.3%	389.5	187.9	107.3%	1075.8	1170.9	-8.1%	87.9	156.7	-43.9%	1590.6	1548.4	2.7%
West Bengal as State	38.7	31.1	24.4%	397.7	235.8	68.7%	1487.1	1405	5.8%	87.2	159.1	-45.2%	2010.70	1831.00	9.8%

*Data source: IMD-RMC, Kolkata

Annexure VI: Station-wise Monthly Rainfall Statistics during Monsoon, 2020

Sl. No.	River Sub Basin	District	Normal Annual Rainfall (mm)	Location of Rain Gauge Station	Monthly Total Rainfall (mm)					1-D Max. Rnf (mm)	Type of Rainfall	Date of Max. Rnf		
					Jun-20	Jul-20	Aug-20	Sep-20	Oct-20					
1	Teesta	East Sikkim	2739.00	Gangtok	486.4	951.5	542.1	645.7	30.4	101.0	Heavy	18.6.20		
2		Darjeeling	3118.50	Darjeeling	600.4	651.8	660.2	517.8	16.4	125.6	V. Heavy	22.9.20		
3		Jalpaiguri	3463.30	Malbazar	831.6	2132.4	837.4	913.8	146.4	290.6	E. Heavy	12.7.20		
4				Jalpaiguri	680.7	1083.2	507.0	1280.9	24.3	177.4	V. Heavy	23.9.20		
5	Jaldhaka			Banarhat	810.1	1817.2	582.0	1048.4	70.0	220.0	V. Heavy	22.7.20		
6				Mainaguri	926.3	1022.4	601.0	1299.2	4.0	240.0	V. Heavy	23.9.20		
7	Coochbehar	3443.70	Mathabhanga	879.6	841.2	289.8	1413.8	221.4	247.8	E. Heavy	27.9.20			
8	Sankosh	Alipurduar	3463.30	Barabisha	1267.2	1933.4	675.8	1151.8	51.6	255.0	E. Heavy	25.6.20		
9	Torsa	Jalpaiguri		Hasimara	1110.6	1712.4	994.6	1030.6	82.6	208.0	V. Heavy	27.6.20		
10		Alipurduar		Alipurduar	1454.8	2132.2	818.6	1762.6	140.0	345.4	E. Heavy	12.7.20		
11		Coochbehar		Coochbehar	913.5	916.4	292.2	1224.0	168.4	262.2	E. Heavy	25.6.20		
12				Tufanganj	1533.8	1645.4	679.2	1785.6	162.6	324.4	E. Heavy	26.6.20		
13	Mahananda-Fulhar	Darjeeling	3118.50	Siliguri	584.6	1382.4	635.1	1127.2	104.8	232.0	V. Heavy	12.7.20		
14		Uttar Dinajpur	1727.60	Islampur	394.5	468.8	156.8	494.8	1.2	109.2	Heavy	27.9.20		
15				Raiganj	253.4	551.8	214.4	397.4	20.2	98.4	Heavy	3.7.20		
16		Malda	1419.40	English Bazar	451.4	265.0	137.6	330.7	161.5	107.1	Heavy	6.6.20		
17	Atreyee	Dakshin Dinajpur	1584.90	Balurghat	272.8	675.6	267.4	371.2	139.8	135.0	V. Heavy	3.7.20		
18	Punarbhava			Gangarampur	351.7	447.5	103.0	747.7	72.5	172.5	V. Heavy	13.9.20		
19	Bhagirathi - Hooghly	Murshidabad	1391.10	Berhampore	282.0	472.0	272.6	157.6	52.0	117.8	Heavy	20.7.20		
20		Purba Burdwan	1315.20	Katwa	265.3	280.2	340.2	63.5	5.7	93.8	Heavy	5.8.20		
21	Jalangi	Nadia	1261.60	Swarupganj	329.2	476.4	275.6	145.2	147.8	112.0	Heavy	14.7.20		
22	Pagla-Bansloi	Brahmanி-Dwarka	1612.40	Paikor	182.4	215.2	150.2	283.2	43.6	68.2	Heavy	18.9.20		
23	Md. Bazar			214.2	327.7	289.6	109.1	13.5	75.7	Heavy	19.6.20			
24	Rampurhat			279.6	311.6	334.0	287.8	22.4	125.2	V. Heavy	12.8.20			
25	Mallarpur			238.0	412.7	510.8	306.8	14.0	280.7	E. Heavy	12.8.20			
26	Deocha			155.9	371.9	275.3	176.7	21.5	62.2	Normal	18.9.20			
27	Mayurakshi-Babla	Dumka	1381.50	Haripur	207.0	401.4	294.0	207.0	39.8	70.2	Heavy	22.8.20		
28				Khusiary	187.4	369.0	279.2	199.0	91.6	72.4	Heavy	5.8.20		
29				Maharo	234.8	388.8	438.2	288.8	39.8	94.2	Heavy	7.8.20		
30				Massanjore	209.6	417.8	354.8	199.8	44.0	84.8	Heavy	22.7.20		
31				Tantloi	182.6	280.8	205.8	197.8	16.8	79.2	Heavy	8.9.20		
32	Ajay-Hinglow	Birbhum	1612.40	Tilpara Barrage	357.8	432.6	297.1	156.4	29.2	86.0	Heavy	29.7.20		
33				Shyambati	461.0	521.0	386.0	326.0	29.0	130.0	V. Heavy	8.9.20		
34		Murshidabad	1391.10	Kandi	480.4	516.2	251.6	99.2	56.0	128.4	V. Heavy	17.6.20		
35	Ajay-Hinglow	Deoghar	1162.10	Sikatia	197.2	369.4	233.8	181.2	15.6	62.4	Normal	7.7.20		
36		Birbhum	1612.40	Hinglow	243.0	381.0	280.0	175.0	28.0	55.0	Normal	29.7.20		
37				Debogram	293.0	472.0	265.0	225.0	175.0	127.0	V. Heavy	1.10.20		
38		Paschim Burdwan	1315.20	Satkahania	155.4	123.0	128.8	99.2	20.8	40.0	Normal	20.7.20		
39				Guskara	306.0	410.5	546.0	25.0	48.0	130.0	V. Heavy	23.8.20		
40	Damodar	Kodarma	1116.20	Tilaiya	230.4	365.0	299.2	217.0	107.0	66.8	Heavy	1.8.20		
41		Bokaro	1247.50	Tenughat	291.6	233.2	324.8	193.2	113.6	53.0	Normal	18.9.20		
42		Dhanbad	1355.20	Maithon	188.2	228.4	234.2	290.6	95.2	151.6	V. Heavy	18.9.20		
43				Panchet	161.4	341.4	265.2	174.6	19.6	97.2	Heavy	18.9.20		

Sl. No.	River Sub Basin	District	Normal Annual Rainfall (mm)	Location of Rain Gauge Station	Monthly Total Rainfall (mm)					1-D Max. Rnf (mm)	Type of Rainfall	Date of Max. Rnf
					Jun-20	Jul-20	Aug-20	Sep-20	Oct-20			
44	Damodar	Paschim Burdwan	1315.20	Asansol	255.8	339.2	272.8	200.0	97.6	80.8	Heavy	8.9.20
45				Durgapur	276.1	314.0	215.2	193.4	97.8	102.4	Heavy	18.9.20
46		Purba Burdwan		Jamalpur	207.0	257.0	176.0	70.0	91.0	70.0	Heavy	5.8.20
47		Bankura	1330.90	Sonamukhi	338.0	336.5	184.5	77.5	45.0	55.0	Normal	7.7.20
48	Khari-Behula-Ghea	Purba Burdwan	1315.20	Kanainatsal	354.5	330.8	289.6	66.6	119.6	72.6	Heavy	5.8.20
49				Memari	353.0	218.0	258.0	68.0	70.0	82.0	Heavy	5.8.20
50	Mundeswari	Purba Burdwan	1315.20	Seharabazar	320.0	311.0	306.0	27.0	109.0	85.0	Heavy	22.7.20
51				Lohai (Raina)	278.0	279.0	297.0	31.0	110.0	76.0	Heavy	22.7.20
52	Amta Channel (Damodar)	Hoogly	1418.70	Champadanga	290.3	308.0	243.5	48.5	114.0	86.3	Heavy	6.7.20
53				Singur	267.5	293.0	330.0	117.8	97.3	75.5	Heavy	20.8.20
54		Howrah	1600.00	Amta	290.0	262.0	268.0	89.0	59.0	70.0	Heavy	29.6.20
55				Domjur	221.0	331.0	312.0	172.0	118.0	58.0	Normal	23.7.20
56	Dwarakeswar	Bankura	1330.90	Bankura	286.6	361.8	312.2	134.2	43.6	99.4	Heavy	29.7.20
57				Indus	522.5	366.5	321.5	46.0	80.5	110.0	Heavy	22.7.20
58		Hoogly	1418.70	Arambag	295.1	292.5	246.0	48.0	186.8	52.0	Normal	22.7.20
59	Shilabati	Paschim Medinipur	1535.50	Amlagora	195.7	155.8	220.9	57.4	54.6	43.2	Normal	15.7.20
60			1535.50	Ghatal	378.4	342.8	412.0	121.4	63.2	90.2	Heavy	20.8.20
61	Kangsabati	Purulia	1363.30	Simulia	229.0	362.6	341.0	117.6	118.6	96.8	Heavy	10.10.20
62				Purihansa	232.8	254.8	224.6	168.8	17.8	68.4	Heavy	18.9.20
63				Tusuma	300.0	296.8	338.4	326.6	39.2	144.6	V. Heavy	18.9.20
64				Khardiwar	295.4	265.8	408.4	147.2	105.8	107.6	Heavy	7.7.20
65				Phulberia	419.2	276.0	333.2	173.0	53.0	109.6	Heavy	5.6.20
66		Bankura	1330.90	Mukutmanipur	326.8	240.8	369.6	122.8	32.2	70.8	Heavy	14.7.20
67		Paschim Medinipur	1535.50	Midnapore	207.4	261.8	373.8	94.4	62.2	73.4	Heavy	26.8.20
68		Purba Medinipur	1669.60	Panskura	361.1	238.3	428.5	300.0	145.7	116.1	Heavy	19.8.20
69	Rupnarayan		1669.60	Tamluk	287.8	275.3	513.7	204.5	18.5	85.0	Heavy	26.8.20
70	Kaliaghari	Purba Medinipur	1669.60	Amgachia	124.9	131.4	368.4	219.2	167.8	90.0	Heavy	2.9.20
71		Paschim Medinipur	1535.50	Sabang	252.3	224.0	421.4	138.5	159.5	106.5	Heavy	19.8.20
72	Kangsabati	Jhargram		Jhargram	262.7	247.4	416.5	80.8	94.4	123.3	Heavy	26.8.20
73	Chandia	Paschim Medinipur		Barisha	321.0	241.0	453.0	282.0	95.0	106.0	Heavy	19.8.20
74	Haldi	Purba Medinipur	1669.60	Itamogra	218.8	218.2	317.2	100.2	28.1	69.6	Heavy	19.8.20
75	Rasulpur	Purba Medinipur	1669.60	Contai	213.2	147.8	466.0	232.0	348.4	127.8	V. Heavy	20.8.20
76	Hooghly	Kolkata	1709.20	Alipore	409.8	348.2	447.2	188.2	102.9	69.5	Heavy	8.6.20
77	Ichhamati	North 24-Parganas	1560.30	Bangaon	332.2	316.0	391.0	87.2	76.8	86.4	Heavy	5.8.20
78				Tentulia	337.0	278.0	301.0	281.0	11.0	113.0	Heavy	2.9.20
79		Bidyadhar		Dum Dum	493.7	334.6	361.0	89.9	29.1	129.2	V. Heavy	29.6.20
80		2088.00	Chowbaga	298.0	302.0	336.0	150.0	78.0	102.0	Heavy	13.7.20	
81	Sundarban Area		South 24-Parganas		Uttarbhag	333.0	156.0	333.0	138.0	34.0	68.0	Heavy
83	Subarnarekha	Purba Medinipur	1669.60	Digha	143.3	52.0	567.0	202.0	229.0	150.0	V. Heavy	19.8.20

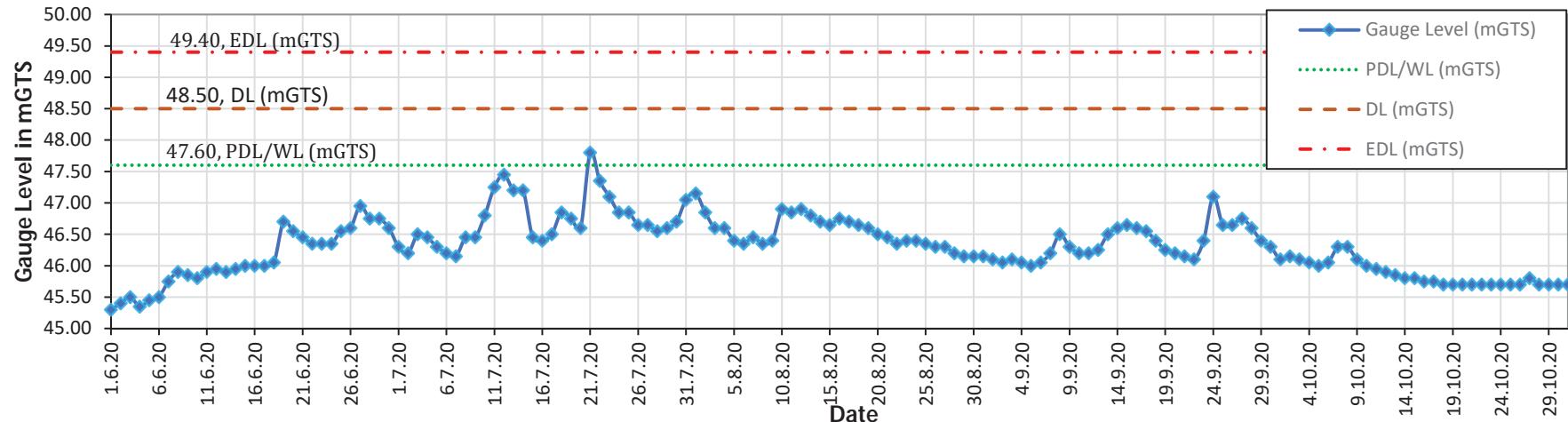
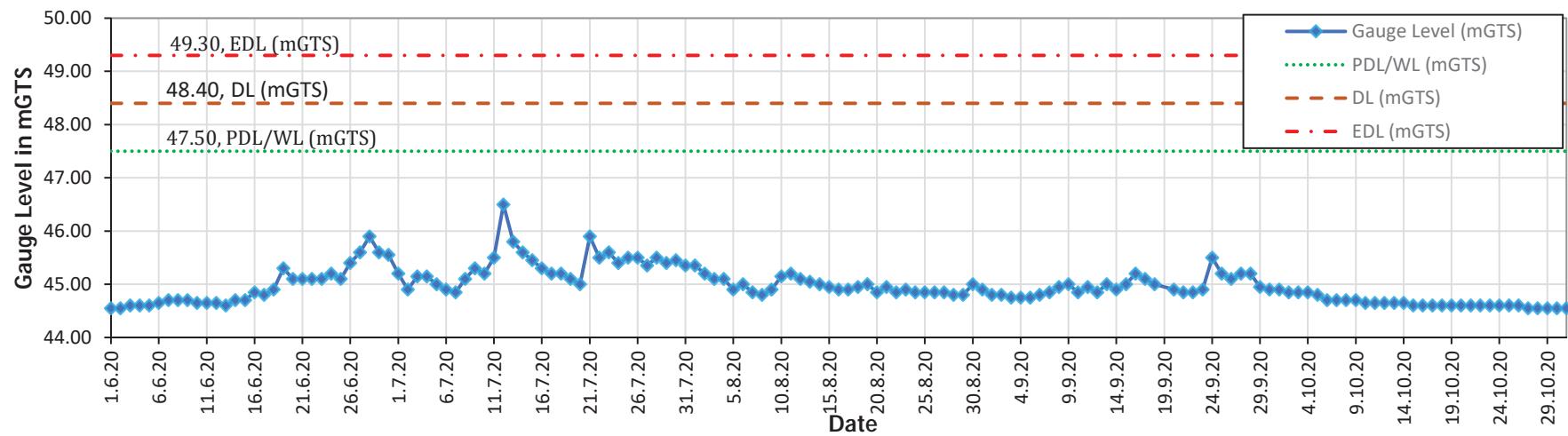
* Data Source: Daily Flood Reports of Central Flood Control Room, I&WD

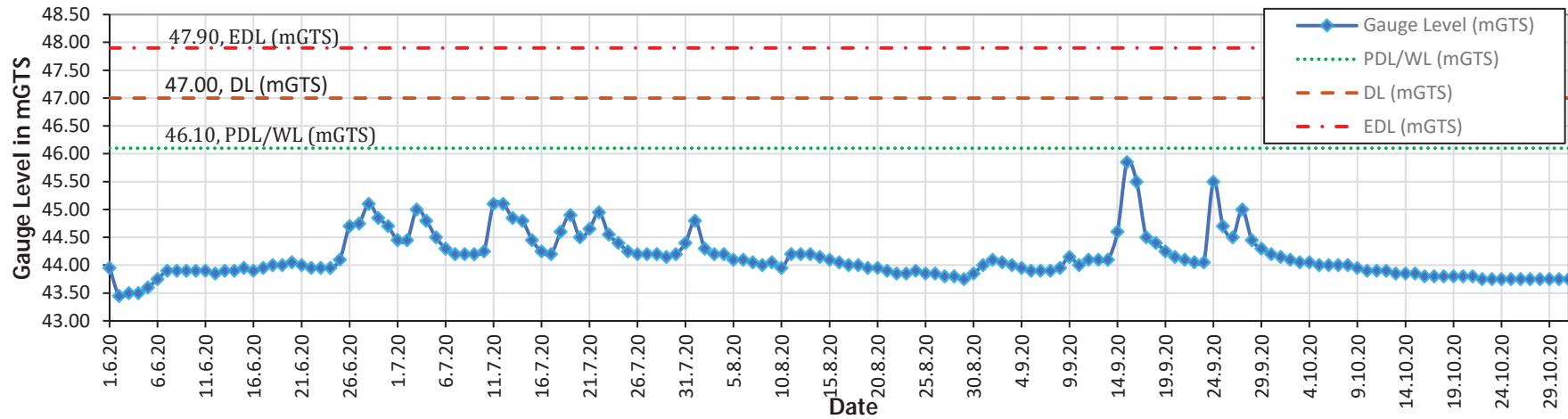
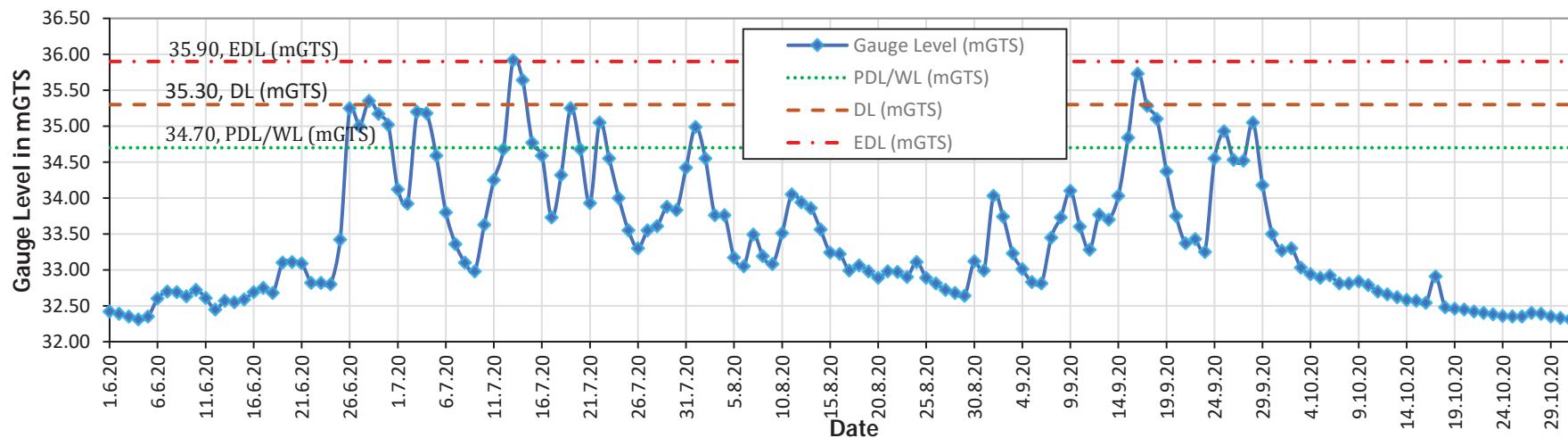
Annexure-VII: Monthly Statistics of River Gauges during Flood Season, 2020

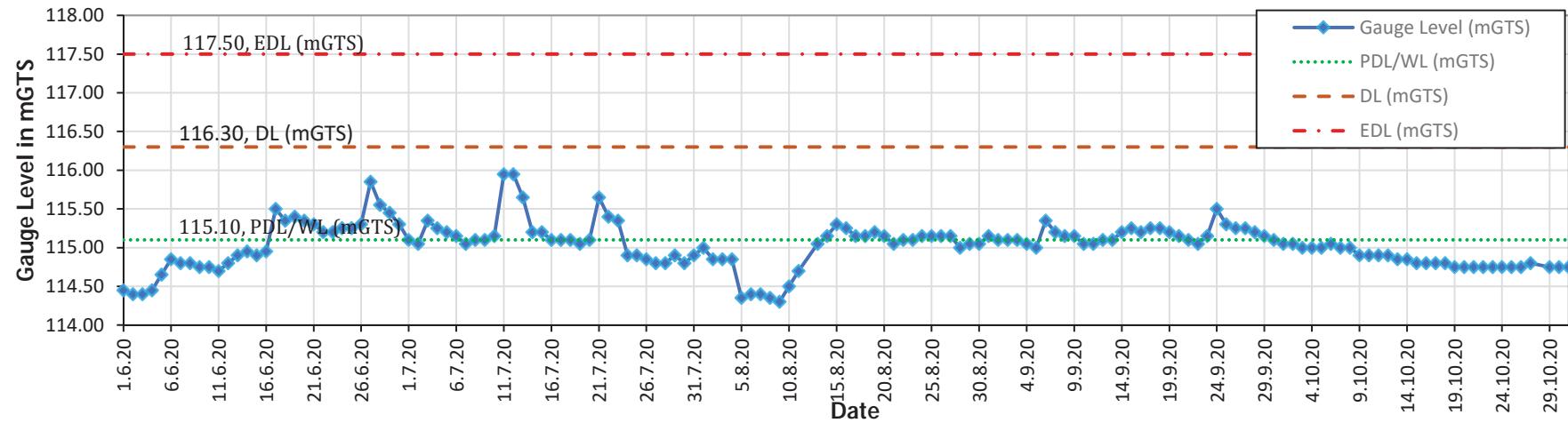
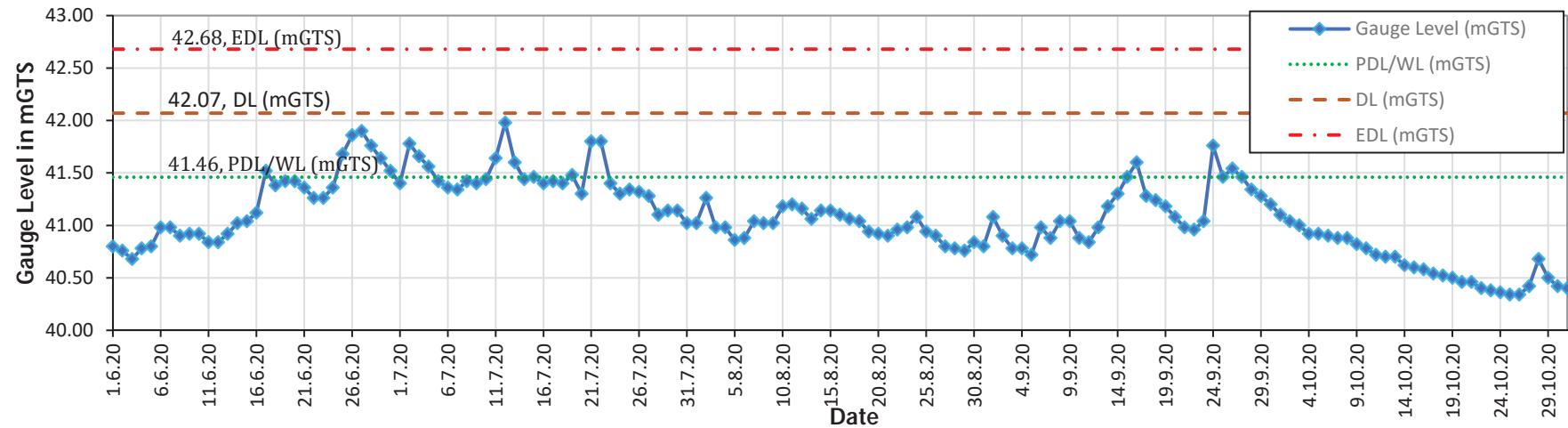
Sl.	River	Gauge Station	District	PDL / WL	DL	EDL	Monthly Avg. River Gauge Level (mGTS)					Max. GL (mGTS)	Max. GL w.r.t reference value	Date of Peak	Min. GL (mGTS)	No. of Days crossing			
				(mGTS)	(mGTS)	(mGTS)	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20					PDL	DL	EDL	
1	Sankosh	L.R.P. Crossing	Alipurduar	47.60	48.50	49.40	46.08	46.73	46.53	46.36	45.87	47.80	0.20 m. above PDL/WL	21.7.20	45.30	1	0	0	
2	Raidak-II			47.50	48.40	49.30	44.94	45.35	44.96	44.99	44.65	46.50			12.7.20	44.55	0	0	0
3	Raidak-I			46.10	47.00	47.90	44.03	44.49	44.03	44.34	43.87	45.85			15.9.20	43.45	0	0	0
4		Tufanganj	Coochbehar	34.70	35.30	35.90	33.10	34.24	33.30	33.99	32.63	35.92	0.02 m. above EDL	13.7.20	32.31	15	3	1	
5	Torsa	Hasimara	Alipurduar	115.10	116.30	117.50	115.03	115.17	114.88	115.17	114.83	115.95	0.85 m. above PDL/WL	11.7.20	114.00	73	0	0	
6		Coochbehar	Coochbehar	41.46	42.07	42.68	41.19	41.44	40.99	41.14	40.64	41.98	0.52 m. above PDL/WL	12.7.20	40.34	23	0	0	
7	Kaljani	Alipurduar	Alipurduar	44.50	45.10	45.70	43.25	43.79	43.43	43.60	42.90	45.25	0.15 m. above DL	12.7.20	42.50	4	2	0	
8	Diana	Chengmari	Jalpaiguri	199.90	200.50	201.20	199.03	199.48	198.51	198.85	198.34	200.30	0.40 m. above PDL/WL	22.7.20	198.00	5	0	0	
9	Jaldhaka	Nagrakata		160.10	160.70	161.80	156.58	157.19	156.72	156.71	156.16	158.07			11.7.20	155.87	0	0	0
10		NH-31 Crossing		79.30	80.10	80.90	79.39	79.81	79.54	79.67	79.10	80.23	0.13 m. above DL	11.7.20	78.95	10	3	0	
11	Mansai	Mathabhanga	Coochbehar	47.20	47.70	48.20	46.23	46.86	46.16	46.73	45.31	48.32	0.12 m. above EDL	22.7.20	45.03	13	7	1	
12	Teesta	Teesta Bazar	Darjeeling	210.40	211.00	213.00	143.42	142.76	144.08	143.43	142.41	147.40			6.8.20	79.74	0	0	0
13		Coronation Bridge		149.40	150.00	153.60	85.29	85.64	85.44	85.42	84.67	86.14	0.19 m. above DL	12.7.20	84.29	30	2	0	
14		Domohani	Jalpaiguri	85.60	85.95	86.30	64.47	64.73	65.12	64.77	63.79	65.50	0.15 m. above PDL/WL	13.7.20	63.24	7	0	0	
15		Mekhliganj	Coochbehar	65.35	65.95	66.30	113.40	113.83	113.59	113.70	113.34	114.80			12.7.20	113.10	0	0	0
16	Mahananda	Hill Curt Road	Darjeeling	115.38	115.98	116.59	73.29	73.50	73.28	73.48	NA	75.18	0.01 m. above PDL/WL	28.7.20	73.28	1	0	0	
17		Sonapur	North Dinajpur	75.17	75.77	76.38	16.71	21.06	20.63	19.65	19.55	22.12	0.37 m. above EDL	6.10.20	15.35	24	33	8	
18		Englishbazar	Malda	20.25	21.00	21.75	24.31	26.97	26.77	26.97	25.94	28.37	0.02 m. above EDL	29.9.20	23.00	45	22	2	
19	Fulhar	Teljana		26.51	27.43	28.35	18.55	20.78	19.46	20.38	18.91	24.04	0.28 m. above EDL	3.8.20	17.42	4	4	2	
20	Atreyee	Balurghat	South Dinajpur	22.54	23.15	23.76	29.12	30.87	29.48	29.81	29.22	33.30	0.45 m. above PDL/WL	28.9.20	28.00	3	0	0	
21	Tangon	Radhikapur		32.85	33.45	34.05	24.13	24.82	23.72	24.56	23.60	26.81	0.39 m. above EDL	29.9.20	22.25	10	9	4	
22	Punarbhava	Gangarampur		25.22	25.82	26.42	21.99	23.76	24.58	24.24	23.26	24.78	0.09 m. above DL	23.8.20	21.57	66	6	0	
23	Ganga-Padma	Manikchakghat	Malda	24.09	24.69	25.30	16.61	19.93	20.97	20.23	18.56	21.17			22.8.20	14.47	0	0	0
24		Akherigunj	Murshidabad	17.83	18.44	19.05	NA	28.98	29.55	29.05	NA	30.00			27.8.20	28.80	0	0	0
25	Bansloi	Bansloi Rail Bridge	Birbhum	31.25	31.85	32.76	NA	29.02	29.25	29.24	NA	30.30			22.8.20	28.60	0	0	0
26	Brahamani	Jagdhari Road Br.		32.40	33.00	33.40	16.32	17.84	19.01	18.20	16.57	20.45	0.05 m. above DL	25.7.20	15.02	13	2	0	
27	Dwarka	Sankoghat	Murshidabad	19.50	20.40	21.30	13.62	15.12	16.05	15.06	13.81	17.22	0.46 m. above PDL/WL	26.7.20	12.30	5	0	0	
28		Ranagram		16.76	17.36	17.86	22.20	22.66	22.74	22.34	22.23	24.85			30.7.20	22.00	0	0	0
29	Mayurakshi	Narayanpur		27.19	27.99	28.79	18.09	19.94	19.87	19.24	18.36	21.20			23.7.20	17.30	0	0	0
30	Kuia	Tarapur		22.11	22.71	23.35	34.13	34.01	34.74	34.56	34.26	35.87			25.7.20	14.37	0	0	0
31	Ajoy	Gheropara	Birbhum	38.42	39.42	40.42	14.38	14.94	15.09	14.83	14.73	15.82			13.10.20	14.19	0	0	0

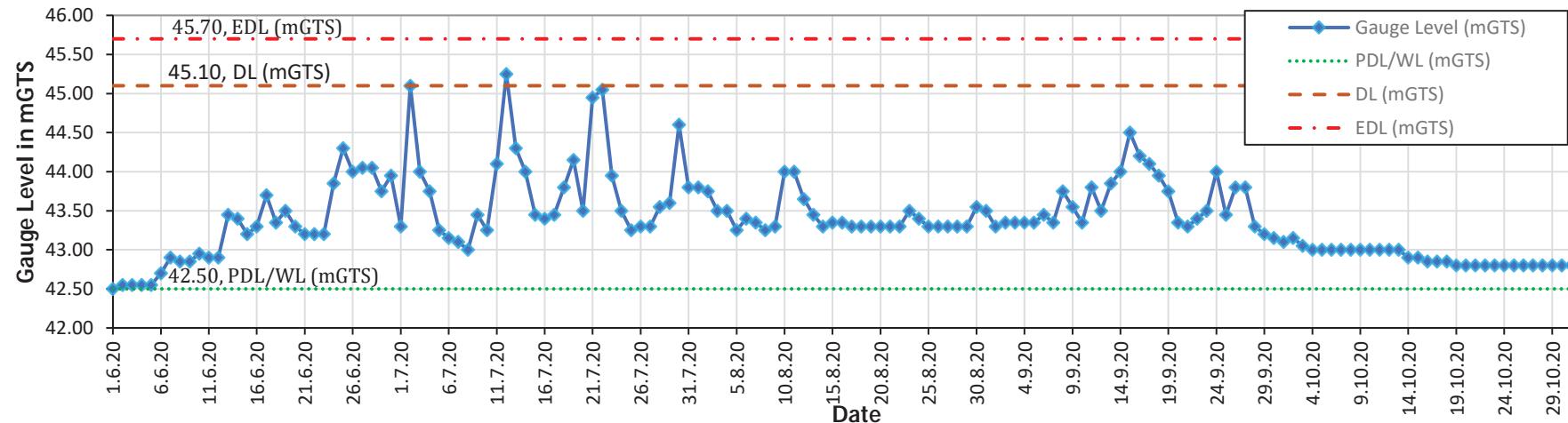
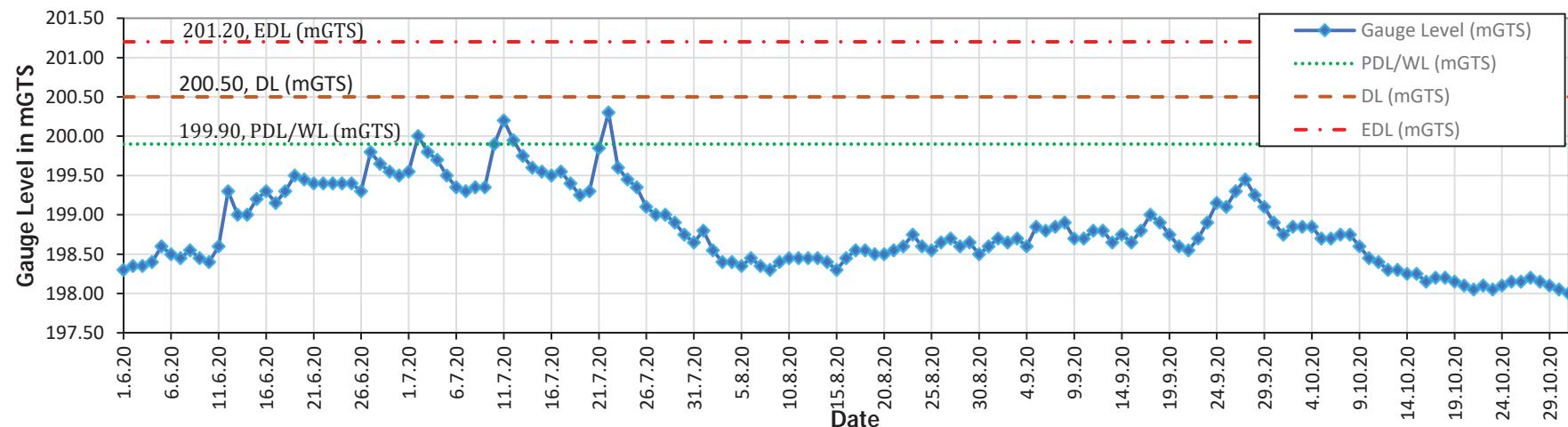
Sl.	River	Gauge Station	District	PDL/WL (mGTS)	DL (mGTS)	EDL (mGTS)	Monthly Avg. River Gauge Level (mGTS)					Max. GL (mGTS)	Max. GL w.r.t reference value	Date of Peak	Min.GL (mGTS)	No. of Days crossing			
							Jun-20	Jul-20	Aug-20	Sep-20	Oct-20					PDL	DL	EDL	
32	Bhagirathi-Hoogly	Baharampur	Murshidabad	16.62	17.22	17.83	9.72	11.28	11.77	11.00	10.34	12.75			26.7.20	9.10	0	0	0
33		Katwa	Purba Burdwan	13.10	13.71	14.32	6.03	7.49	8.24	7.63	6.86	8.73	0.29 m. above DL		27.7.20	5.55	37	11	0
34		Swarupganj	Nadia	7.83	8.44	9.05	4.80	6.25	7.24	7.09	6.31	7.54	0.33 m. above PDL/WL		8.8.20	4.32	27	0	0
35	Mathabhanga	Majdia		7.21	7.82	8.43	4.36	5.69	6.65	6.40	5.64	6.91			8.8.20	3.90	0	0	0
36	Churni	Hanskhali		6.92	7.53	8.14	2.17	2.28	4.15	4.33	4.03	4.46	0.36 m. above PDL/WL		2.9.20	2.01	73	0	0
37	Ichamati	RD Setu (Bongaon)	North 24 Parganas	4.10	4.70	5.25	2.97	3.46	4.43	4.40	4.10	4.72	0.27 m. above DL		2.9.20	2.65	70	20	0
38	Jamuna	Gaighata		3.85	4.45	5.05	49.68	50.04	50.16	49.99	49.96	50.78			24.7.20	49.05	0	0	0
39	Damodar	Rondiha	Paschim Burdwan	51.53	52.13	52.89	27.61	27.59	27.54	27.42	27.40	27.72			19.6.20	27.33	0	0	0
40		Edilpur	Purba Burdwan	32.19	32.79	32.95	16.81	17.06	17.30	16.68	16.73	18.23			7.8.20	16.58	0	0	0
41		Jamalpur		22.93	23.24	23.54	3.57	4.45	4.88	3.24	3.70	5.69	0.05 m. above DL		8.8.20	2.50	16	2	0
42	Amta Channel	Amta	Howrah	5.04	5.64	6.24	4.01	4.19	4.54	3.86	NA	5.40			25.8.20	3.40	0	0	0
43	Hurhura	Muchighata		5.56	6.16	6.77	11.57	11.75	11.93	11.65	11.57	13.31			23.8.20	11.43	0	0	0
44	Dwarakeswar	Arambag	Hooghly	16.61	17.22	17.83	7.00	7.87	7.88	7.59	7.49	9.68			23.8.20	6.69	0	0	0
45		Shakepore		11.15	11.75	12.35	7.00	NA	13.61	NA	NA	14.91	0.44 m. above PDL/WL		22.8.20	7.00	3	0	0
46	Shilabati	Banka	Paschim Medinipur	14.47	15.08	15.69	NA	NA	7.91	NA	NA	7.92			24.8.20	7.89	0	0	0
47		Gadghat		8.38	8.99	9.60	NA	NA	6.13	NA	NA	6.27	0.03 m. above PDL/WL		25.8.20	5.94	2	0	0
48	Rupnarayan	Bandar		6.24	6.85	7.46	NA	NA	3.89	NA	NA	4.23			24.8.20	3.59	0	0	0
49		Gopiganj		4.41	5.03	5.65	NA	NA	25.09	NA	NA	25.24	0.10 m. above PDL/WL		23.8.20	24.76	3	0	0
50	Kangsabati	Mohanpur		25.14	25.75	26.36	NA	NA	9.31	NA	NA	9.57	0.28 m. above DL		27.8.20	9.02	4	3	0
51	Old Cossye	Kalmijole		8.68	9.29	9.90	NA	NA	9.38	6.87	NA	9.78	0.49 m. above DL		23.8.20	6.84	3	4	0
52	New Cossye	Panskura	Purba Medinipur	8.68	9.29	9.90	3.81	3.39	4.51	4.23	3.61	6.15	0.45 m. above PDL/WL		27.8.20	2.65	10	0	0
53	Chandia	Barisha	Paschim Medinipur	4.10	4.55	5.00	3.89	3.99	4.48	4.07	3.84	6.28	0.34 m. above EDL		28.8.20	3.20	6	3	8
54	Kapaleswari	Narayanbarh		4.72	5.33	5.94	5.78	6.14	7.91	5.92	5.99	9.95	1.10 m. above EDL		27.8.20	5.65	3	1	2
55	Kaliaghari	Bakhrabad		7.80	8.40	8.85	3.62	3.85	5.66	3.95	4.35	6.25	0.30 m. above PDL/WL		28.8.20	2.95	3	0	0
56		Dehati		5.95	6.55	7.00	4.04	4.14	4.71	4.28	4.12	6.54	0.14 m. above EDL		28.8.20	3.51	2	7	4
57		Amgachia	Paschim Medinipur	5.18	5.79	6.40	3.23	3.09	3.83	3.29	3.10	4.80	0.40 m. above PDL/WL		22.8.20	2.80	9	0	0
58		Kalimandop	Paschim Medinipur	4.40	5.00	5.33	40.64	40.86	41.48	41.08	40.64	43.60			28.8.20	40.42	0	0	0
59	Subarnarekha	Gopiballavpur	Jhargram	44.90	45.50	46.50	NA	10.13	12.49	10.23	10.28	15.25	0.10 m. above PDL/WL		28.8.20	10.10	1	0	0
60		Sonakonia		15.15	16.15	16.75	9.72	11.28	11.77	11.00	10.34	12.75			26.7.20	9.10	0	0	0
61	Mahananda	Englishbazar	Malda	20.40	21.00	21.75	17.12	21.41	20.58	19.70	19.55	22.12	0.37 m. above EDL		6.10.20	15.40	12	25	8
62	Ajoy	Amuliaghata	Birbhum	104.13	104.73	105.33	102.26	102.48	102.41	102.46	102.37	103.10			24.9.20	102.20	0	0	0
63	Kangsabati	Kapastikri	Paschim Medinipur	15.40	16.00	16.60	11.05	11.31	12.53	11.56	11.14	15.21			23.8.20	10.68	0	0	0
64	Amta Channel	Champadanga	Hooghly	12.30	12.90	13.50	10.00	10.64	10.95	8.81	8.97	12.05			7.8.20	7.85	0	0	0
65	Mundeswari	Harinkhola	Hooghly	12.20	12.80	13.41	NA	7.61	7.29	5.17	4.96	8.50			7.8.20	4.75	0	0	0

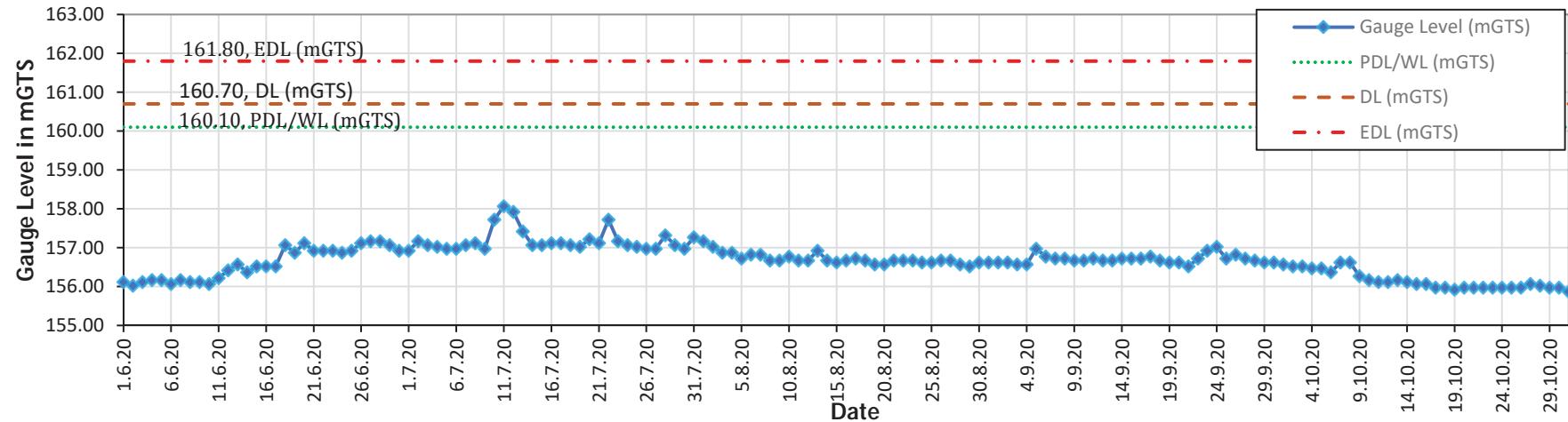
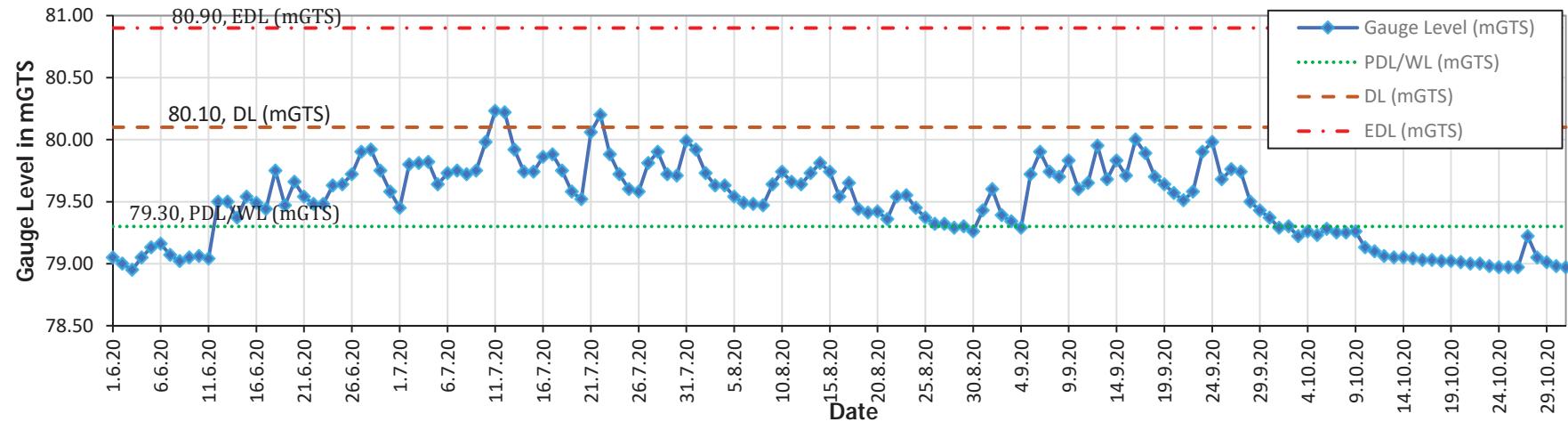
Abbreviation: GL: Gauge Level; BG: Below Gauge; PDL/WL: Primery Danger Level/Warning Level; DL: Danger Level; EDL: Extreme Danger Level

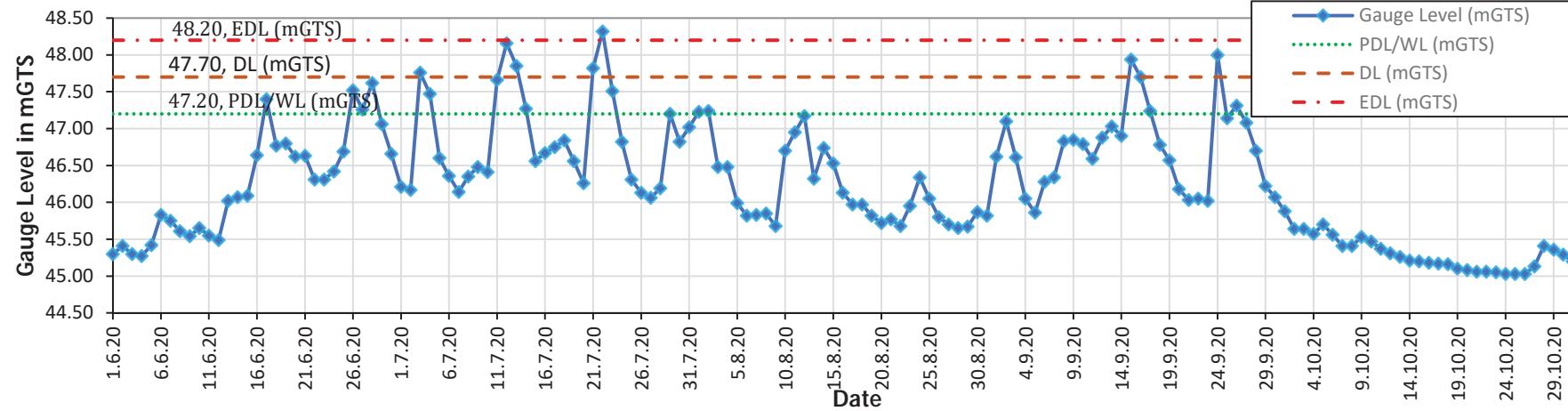
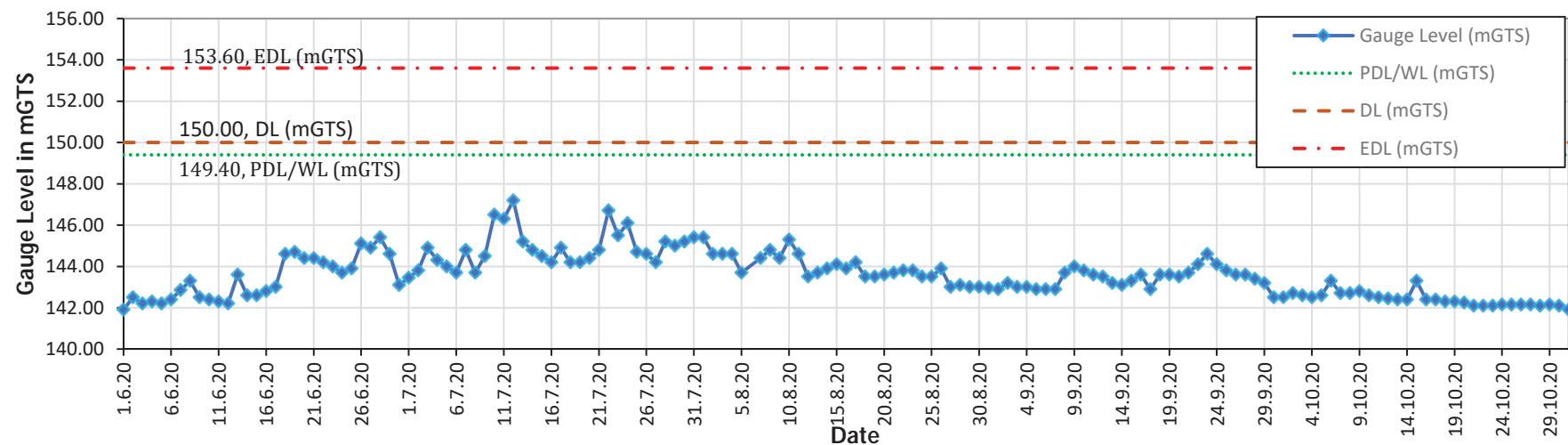
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Sankosh at L.R.P. Crossing during Flood Season 2020****Gauge Level of R. Raidak-II at L.R.P. Crossing during Flood Season 2020**

Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Raidak-I at L.R.P. Crossing during Flood Season 2020****Gauge Level of R. Raidak-I at Tufanganj during Flood Season 2020**

Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Torsa at Hasimara during Flood Season 2020****Gauge Level of R. Torsa at Coochbehar during Flood Season 2020**

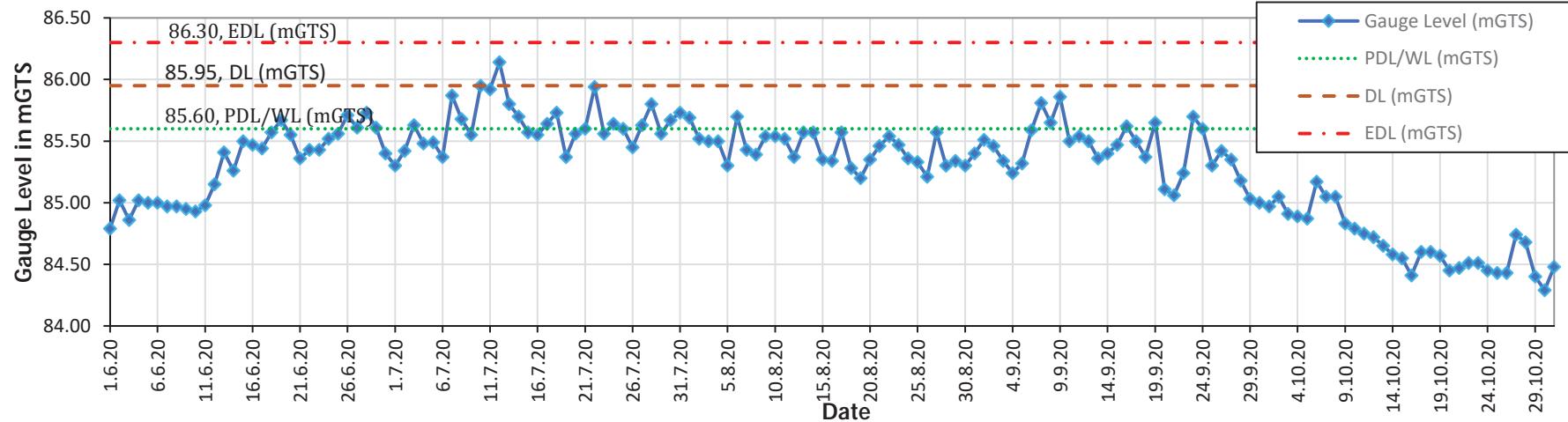
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Kaljani at Alipurduar during Flood Season 2020****Gauge Level of R. Diana at Chengmari during Flood Season 2020**

Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Jaldhaka at Nagrakata during Flood Season 2020****Gauge Level of R. Jaldhaka at NH-31 Crossing during Flood Season 2020**

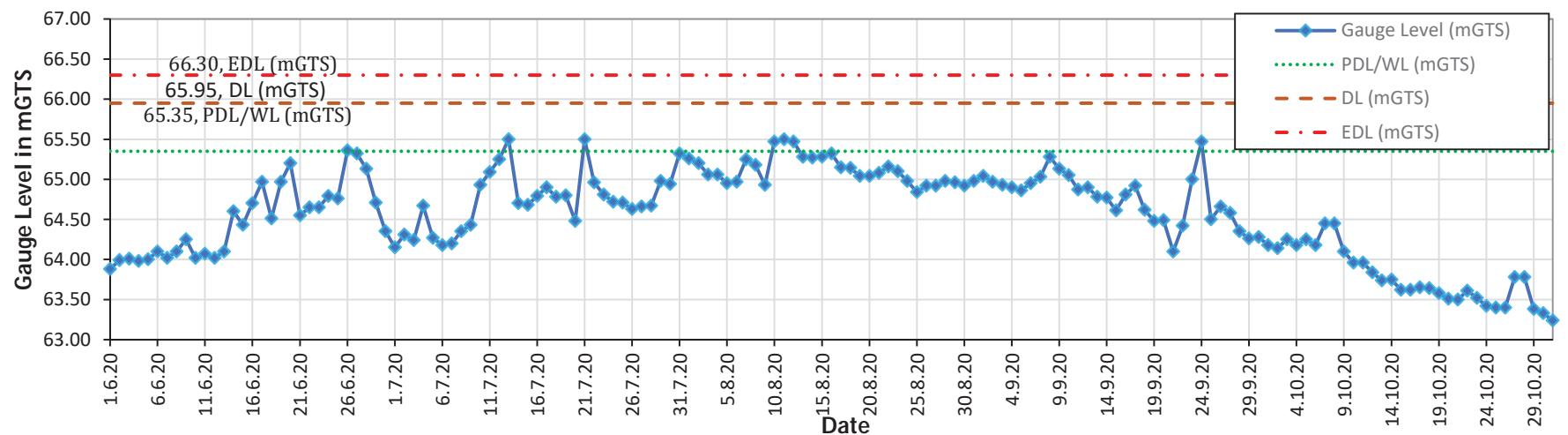
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Mansai at Mathabhanga during Flood Season 2020****Gauge Level of R. Teesta at Coronation Bridge during Flood Season 2020**

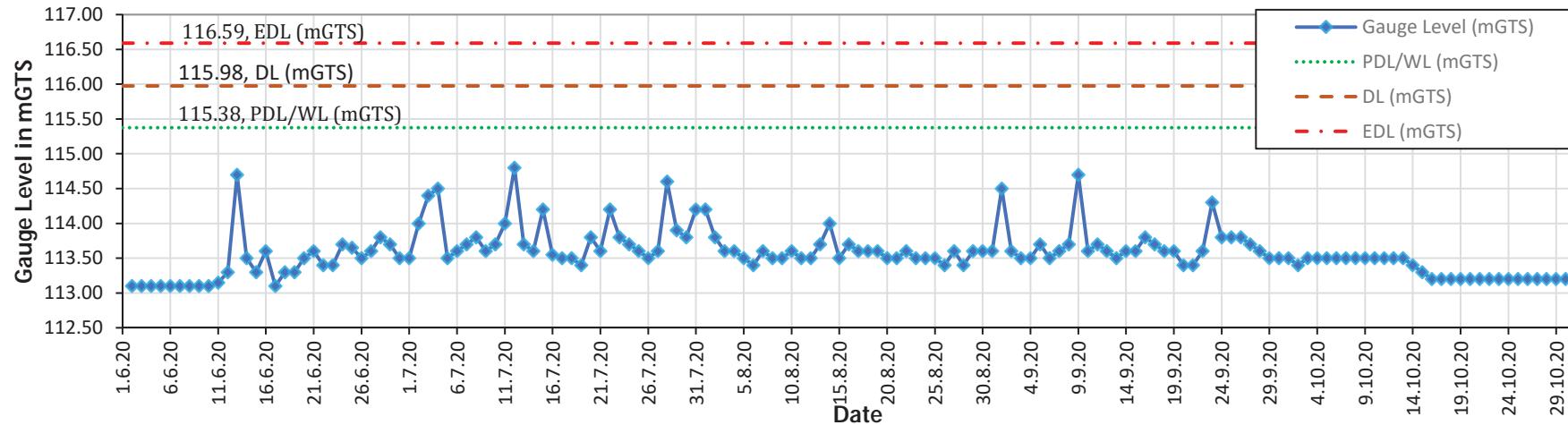
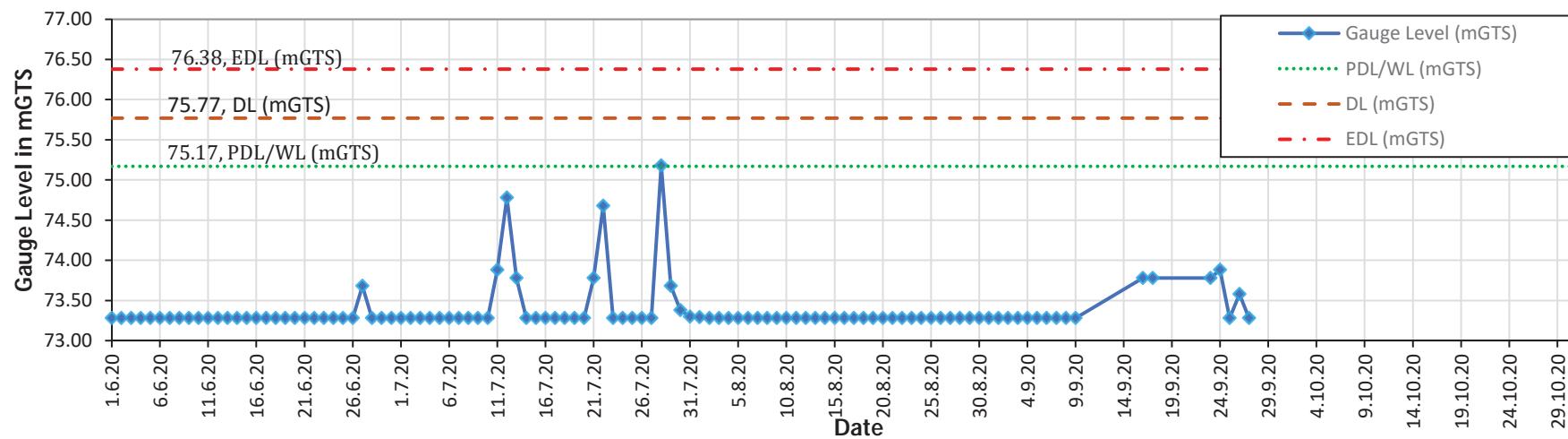
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020

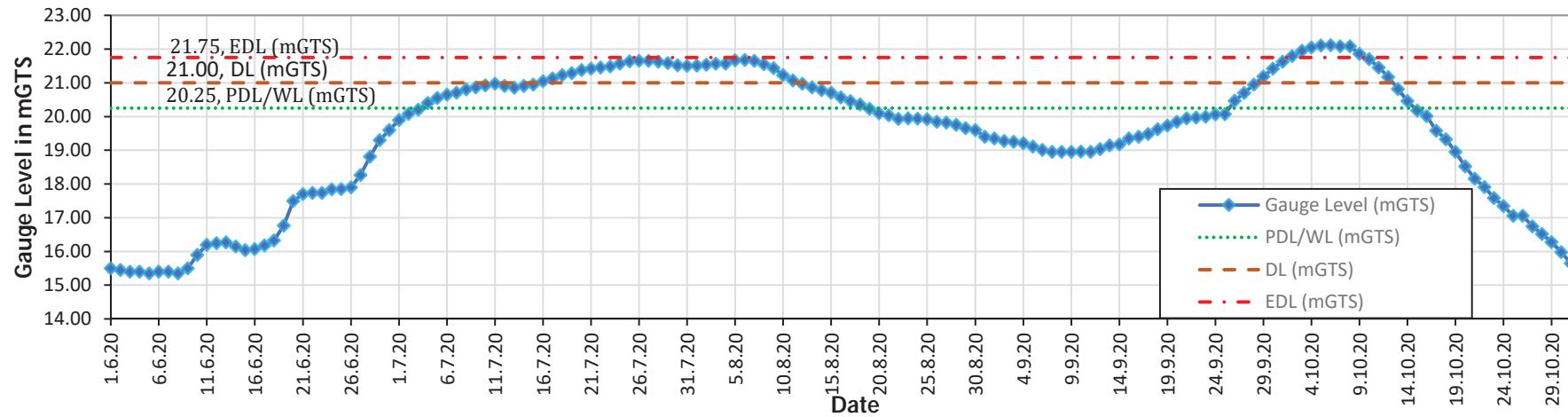
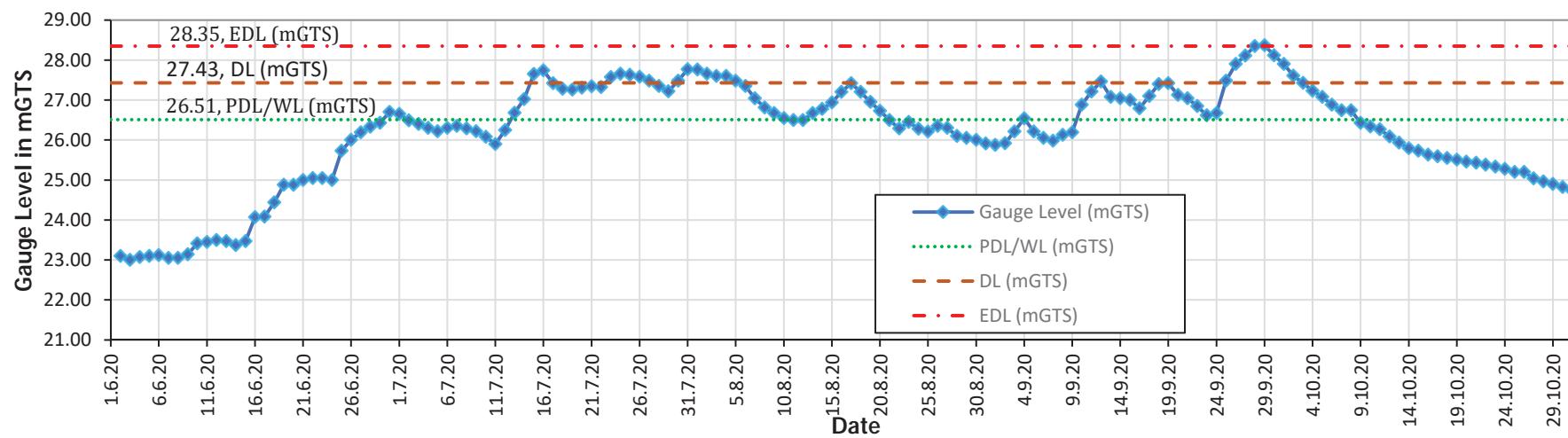
Gauge Level of R. Teesta at Domohani during Flood Season 2020

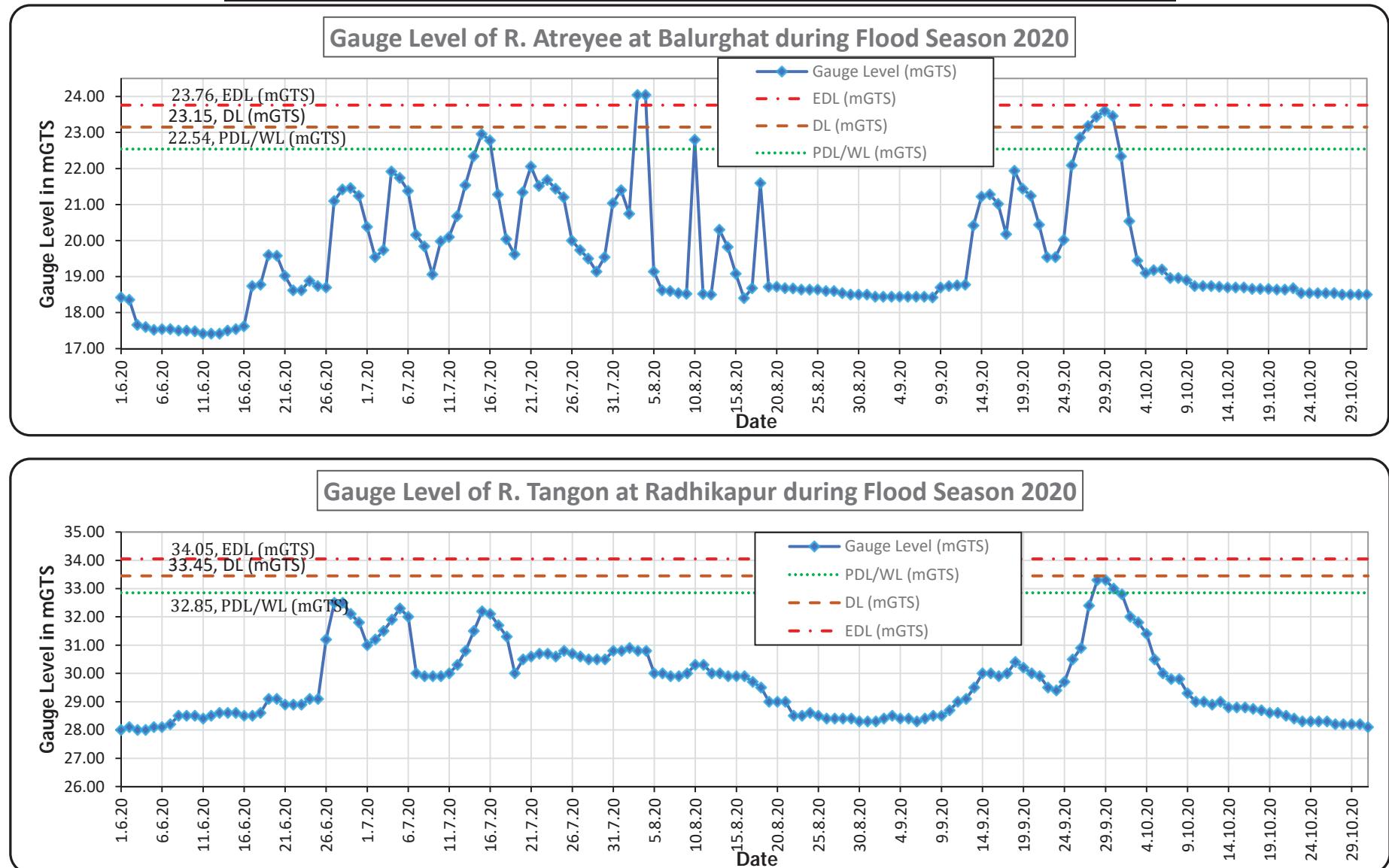


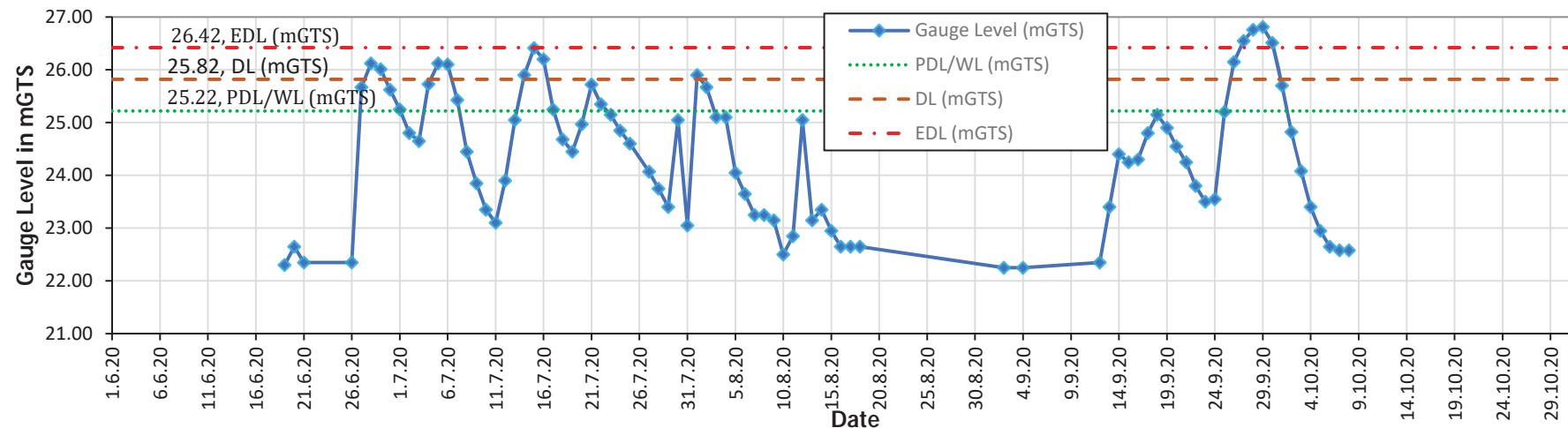
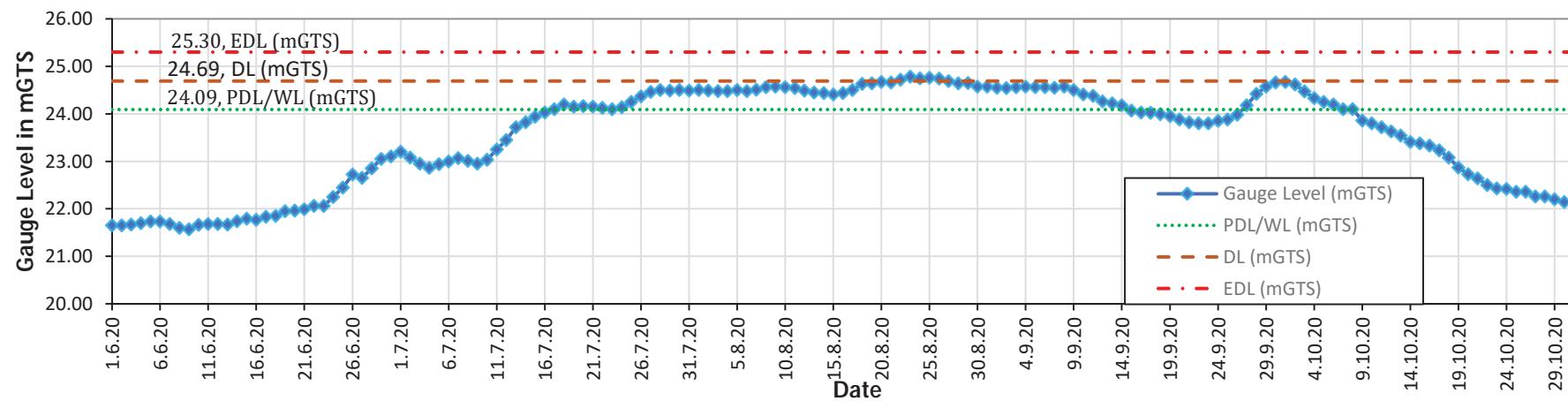
Gauge Level of R. Teesta at Mekhliganj during Flood Season 2020

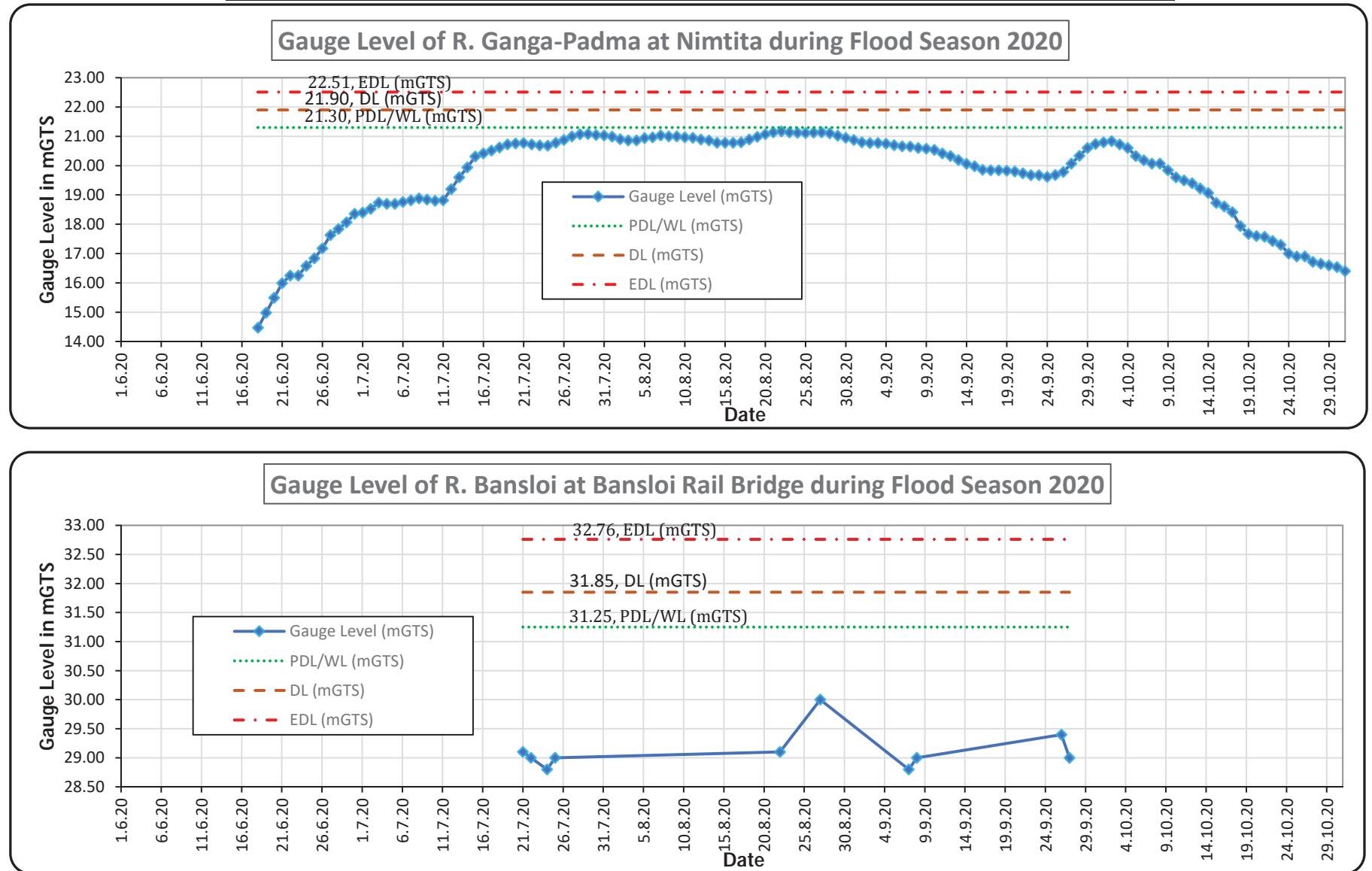


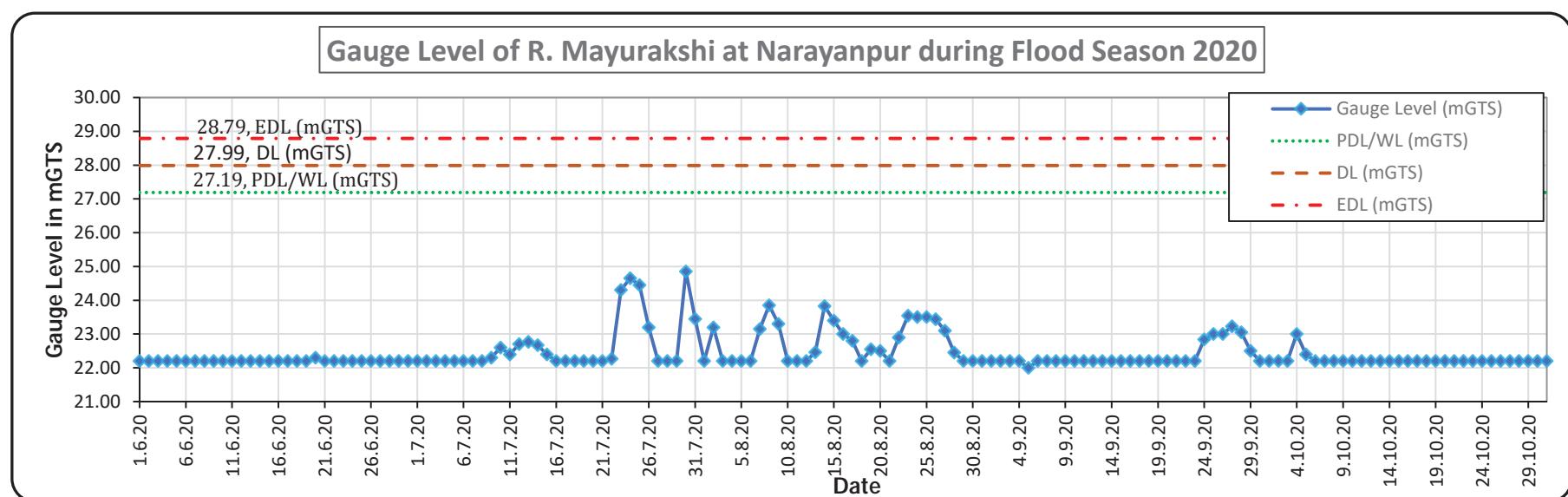
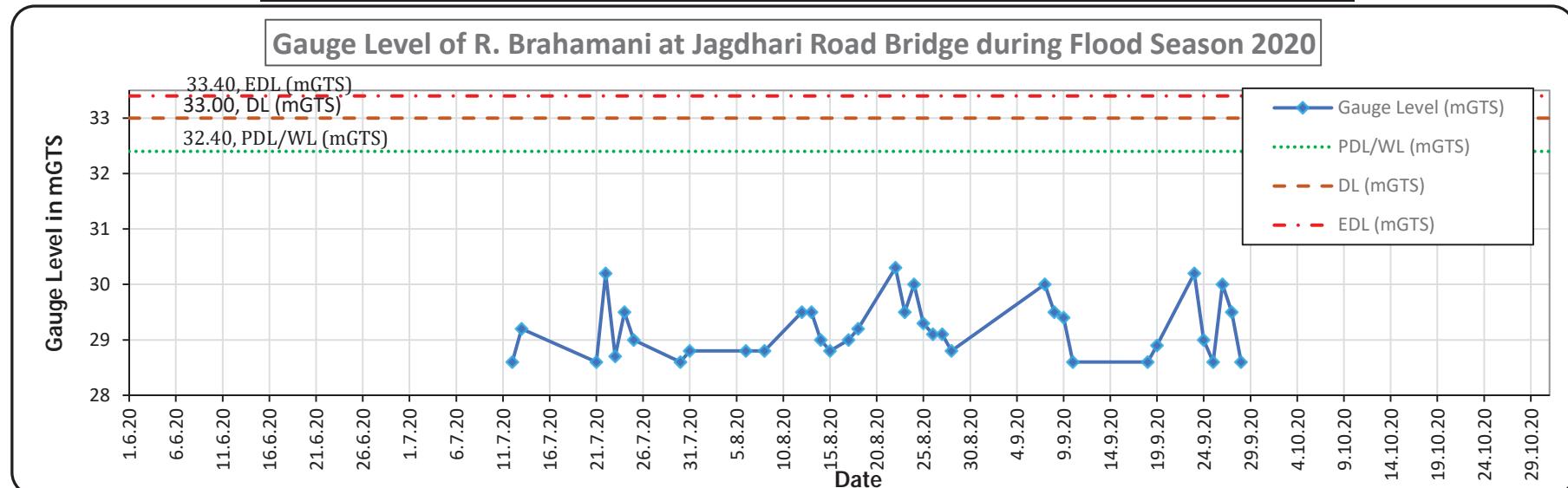
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Mahananda at Hill Cart Road during Flood Season 2020****Gauge Level of R. Mahananda at Sonapur during Flood Season 2020**

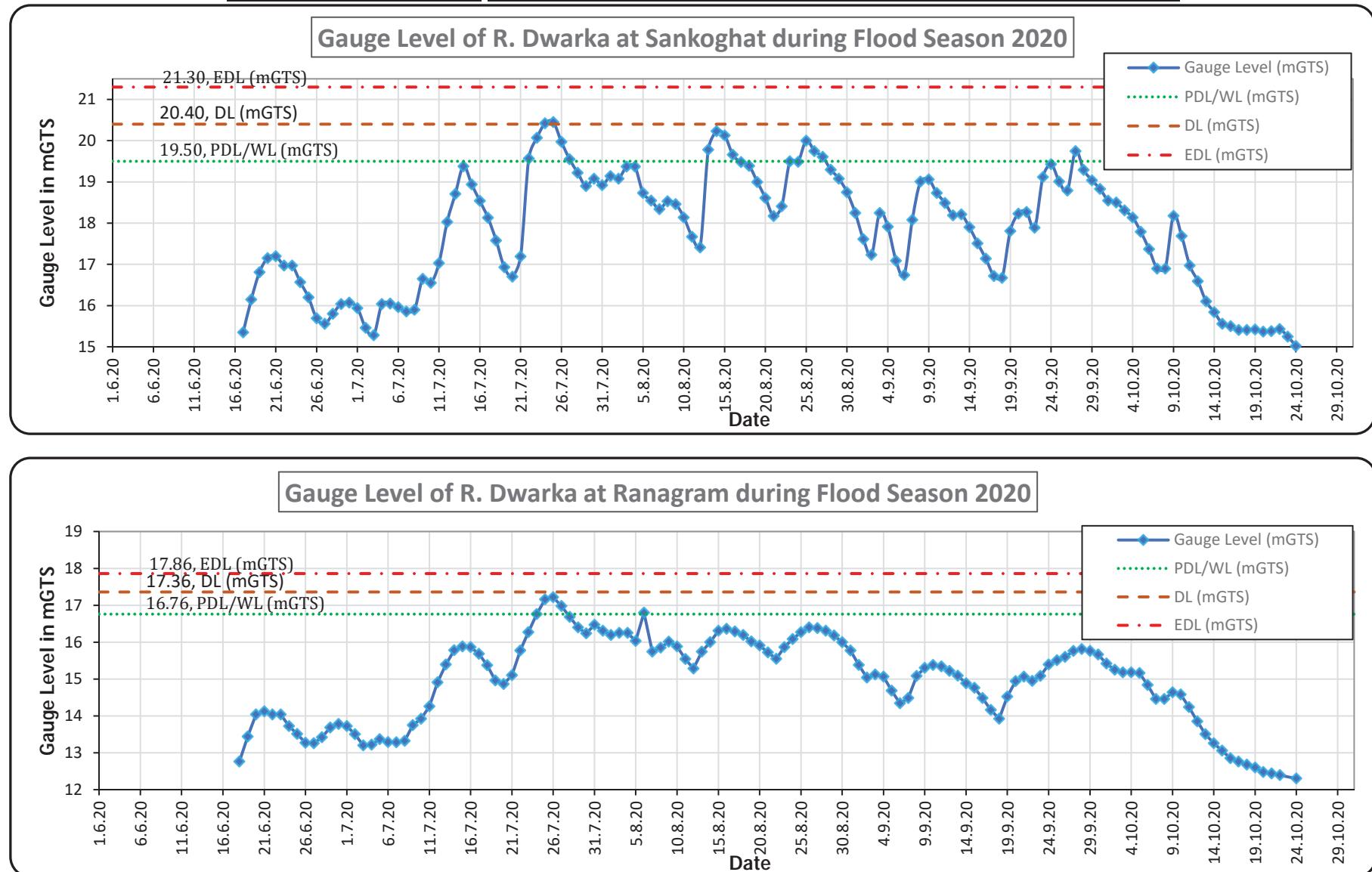
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Mahananda at Englishbazar during Flood Season 2020****Gauge Level of R. Fulhar at Teljana during Flood Season 2020**

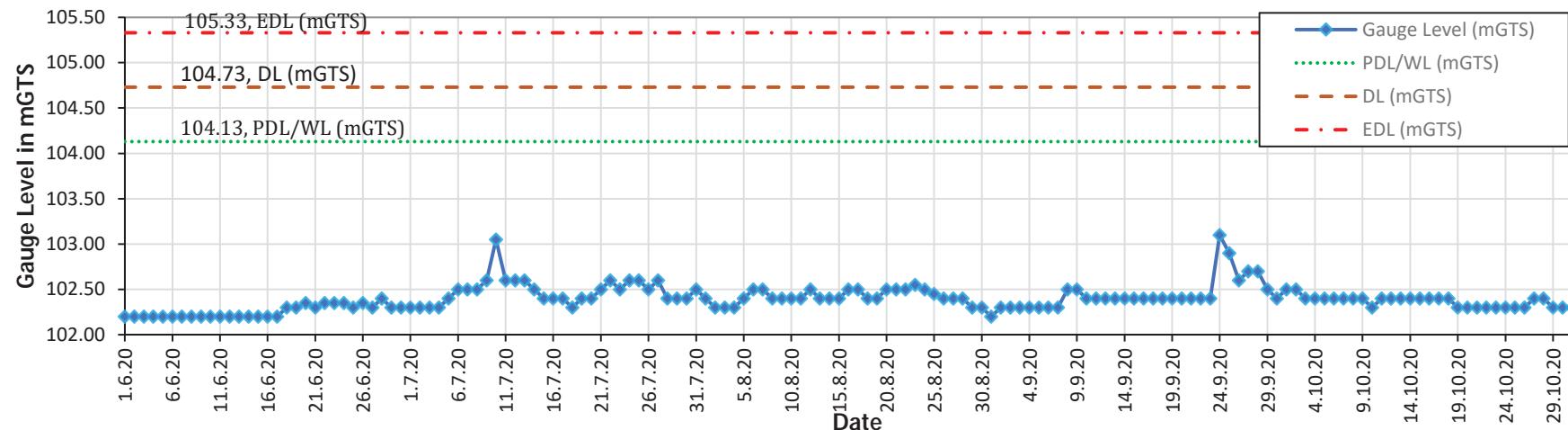
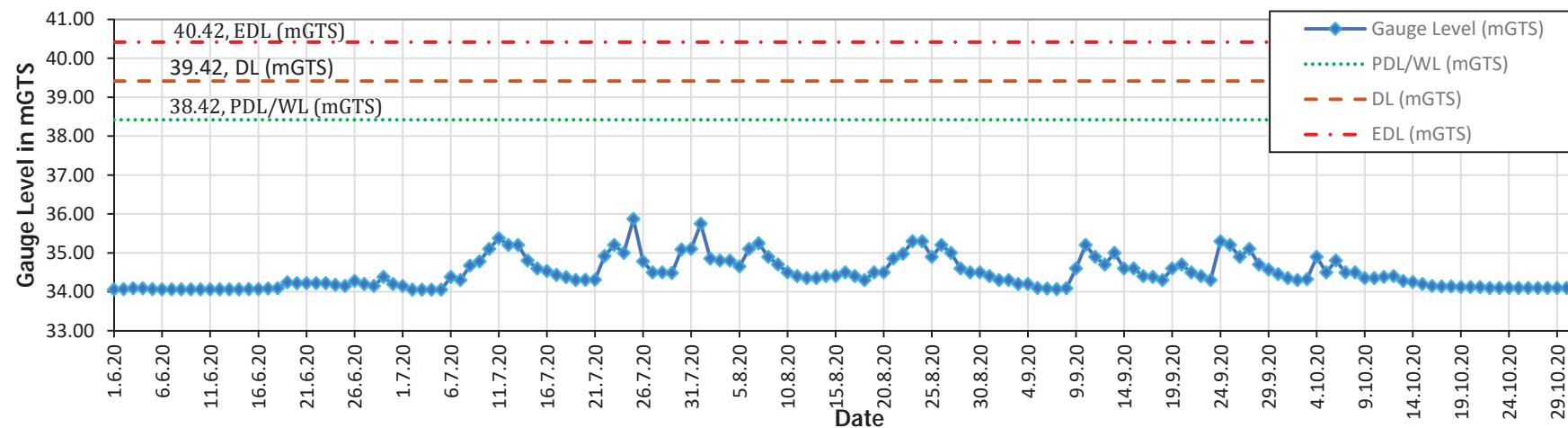
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020

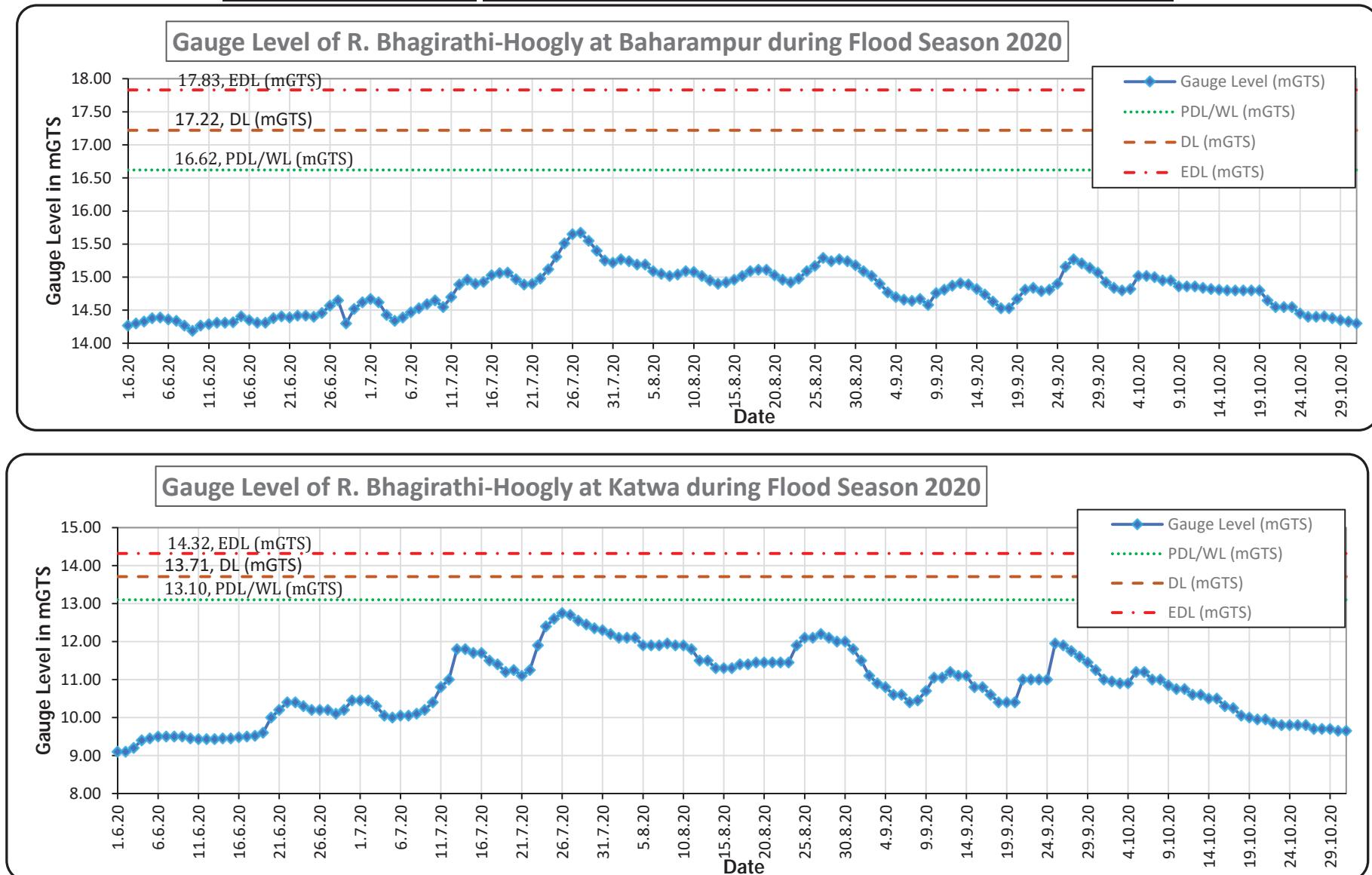
Annexure VIII-A: Gauge Levels of different Rivers of North Bengal during Flood Season 2020**Gauge Level of R. Punarbhaba at Gangarampur during Flood Season 2020****Gauge Level of R. Ganga-Padma at Manikchakghat during Flood Season 2020**

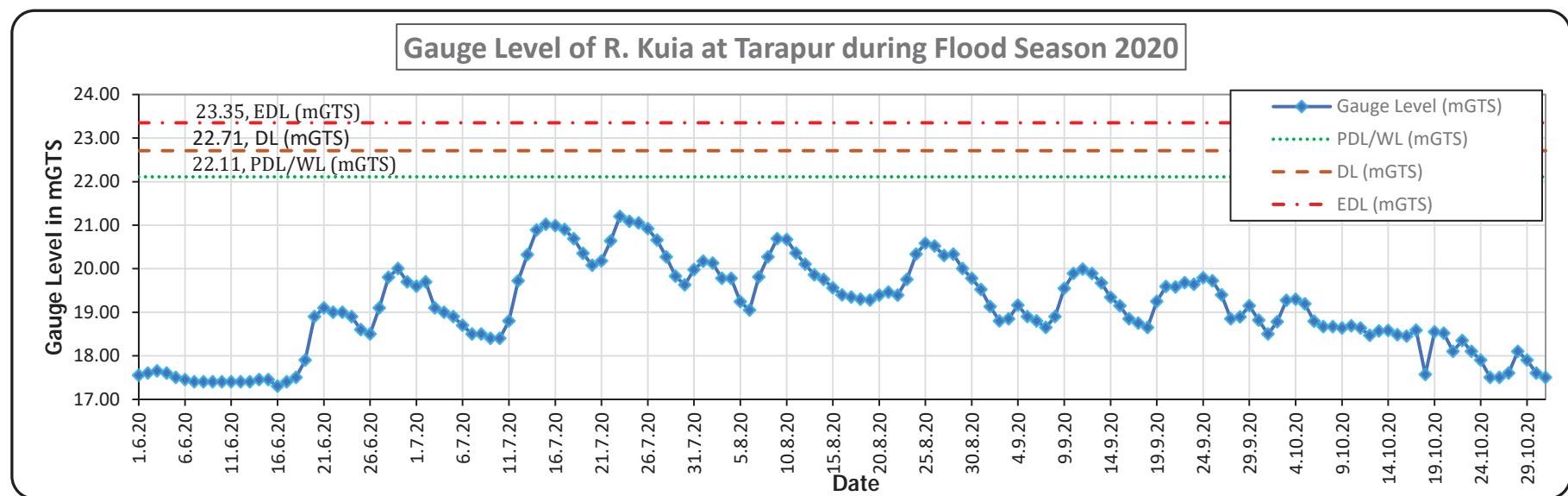
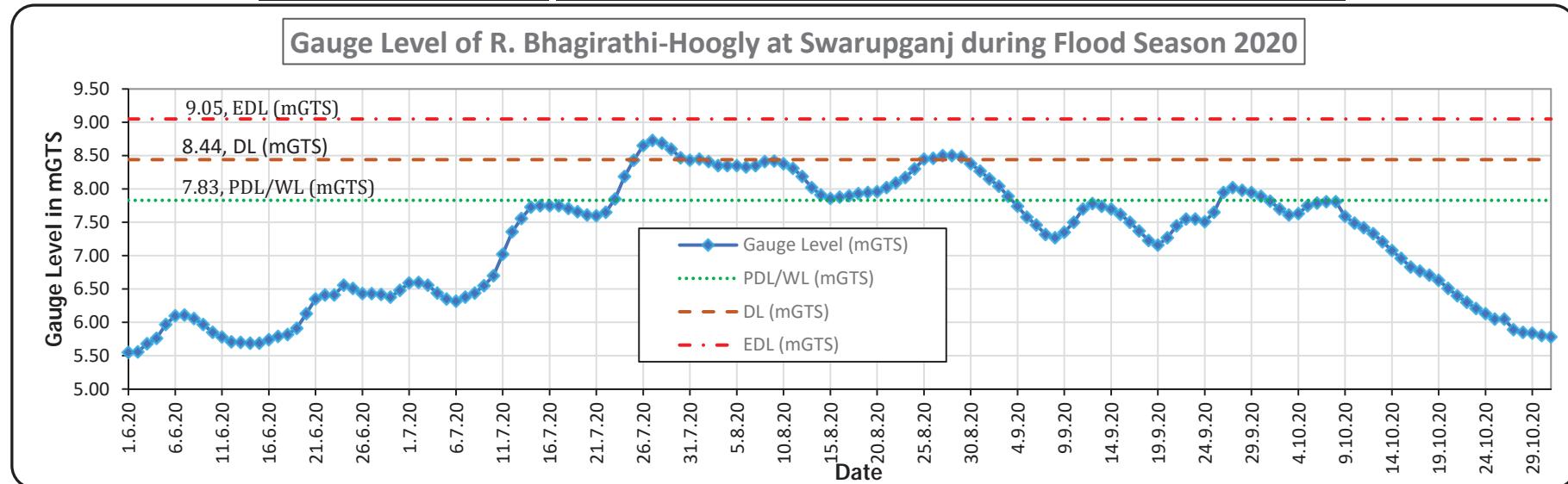
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

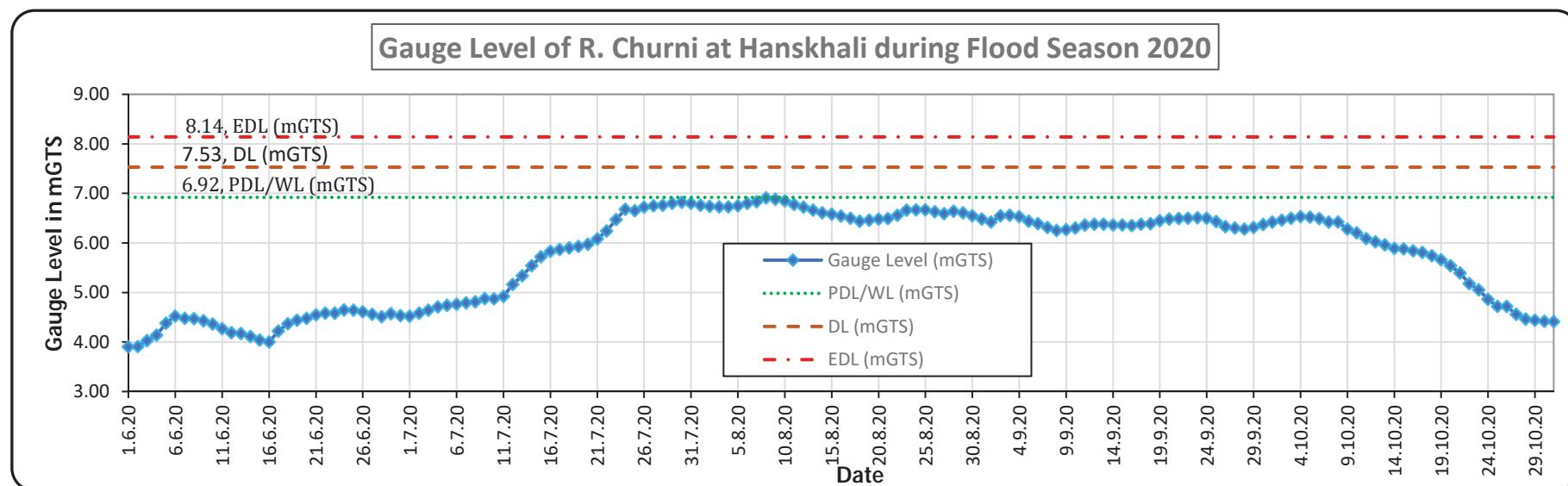
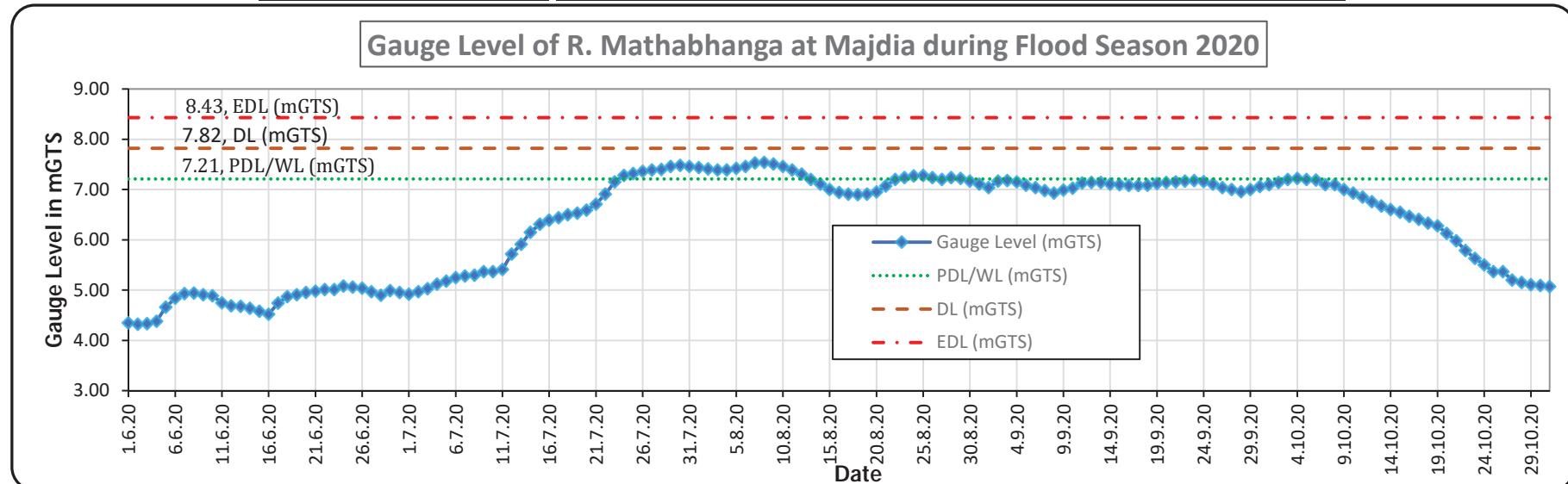
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

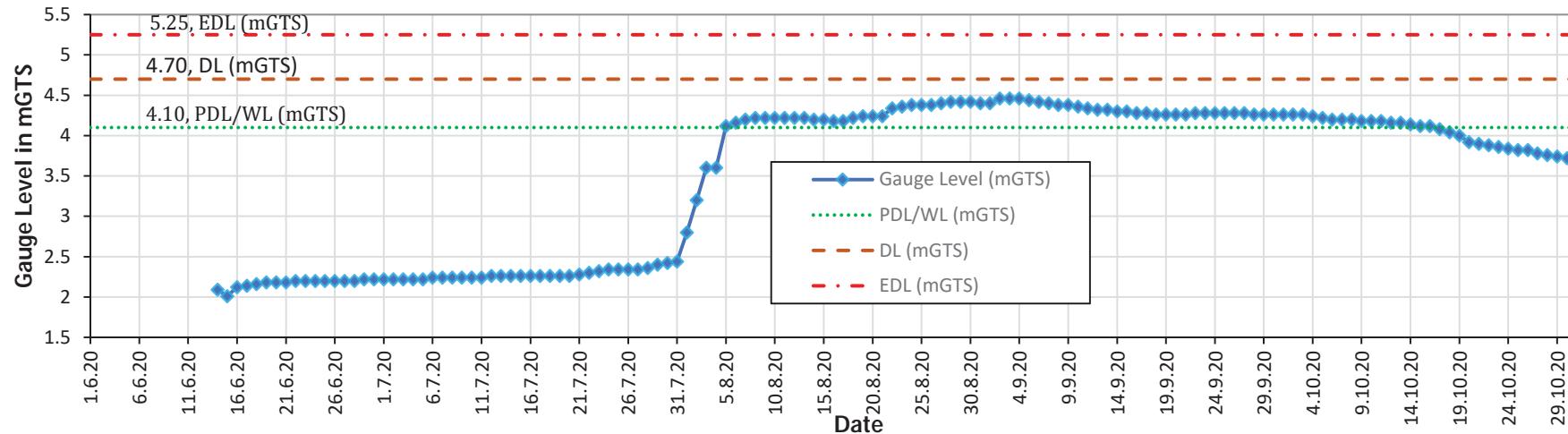
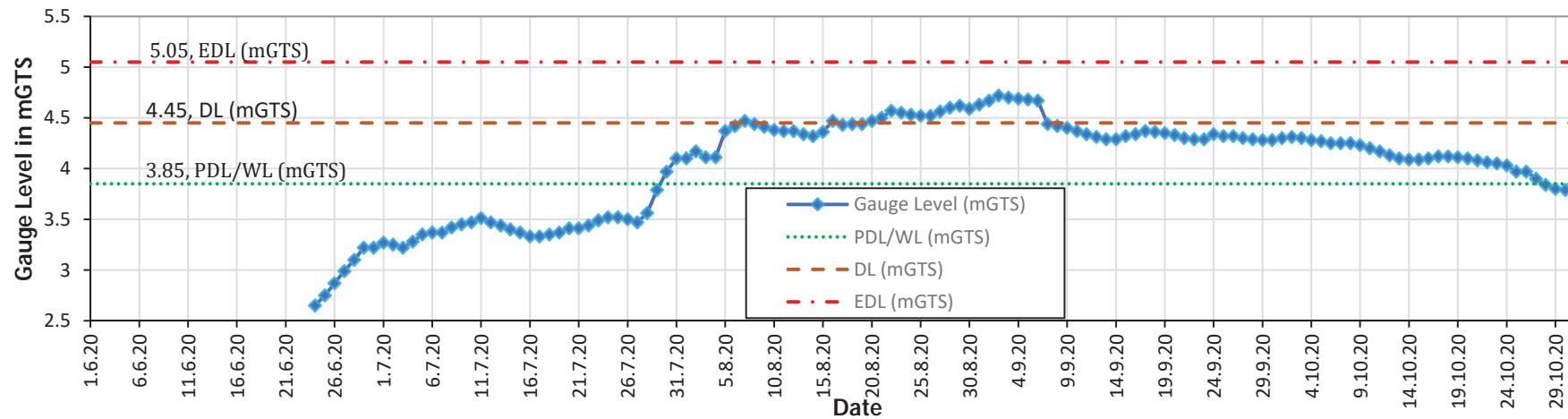
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

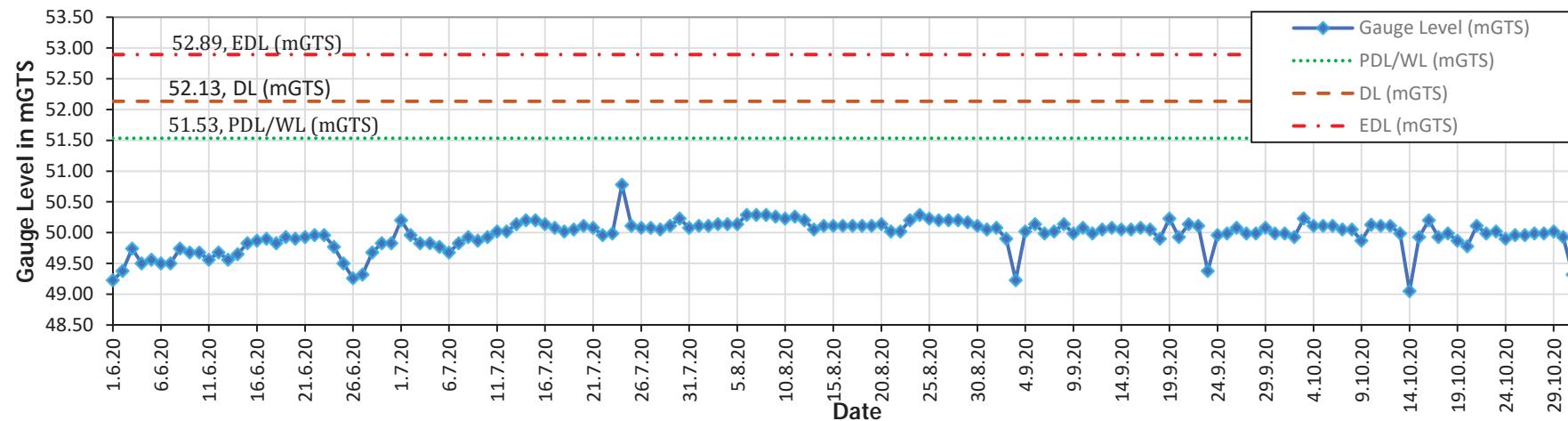
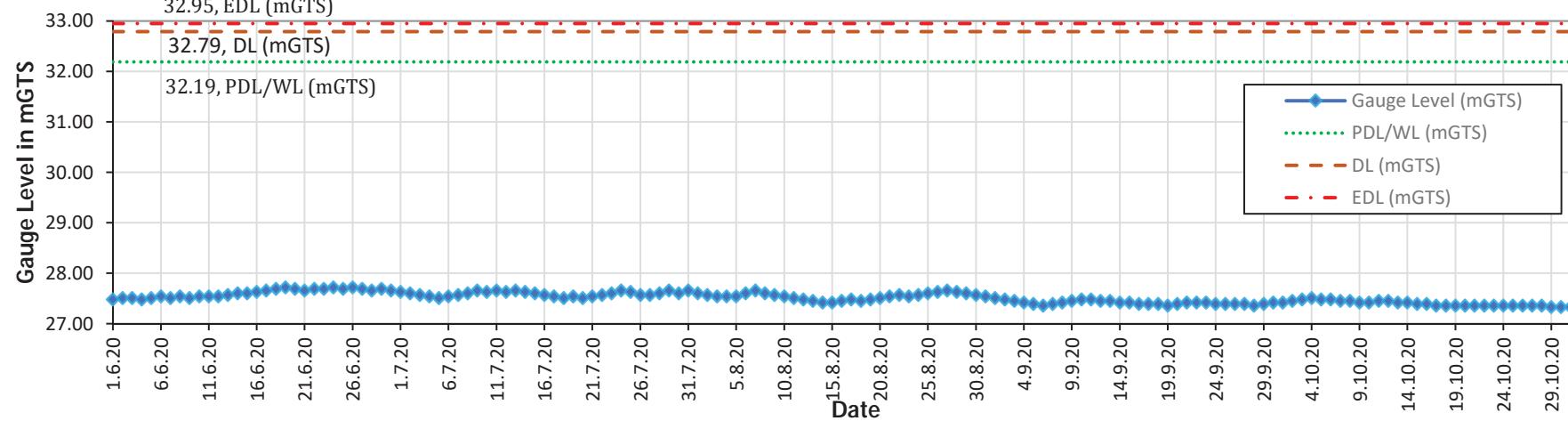
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Ajoy at Amuliaghat during Flood Season 2020****Gauge Level of R. Ajoy at Gheropara during Flood Season 2020**

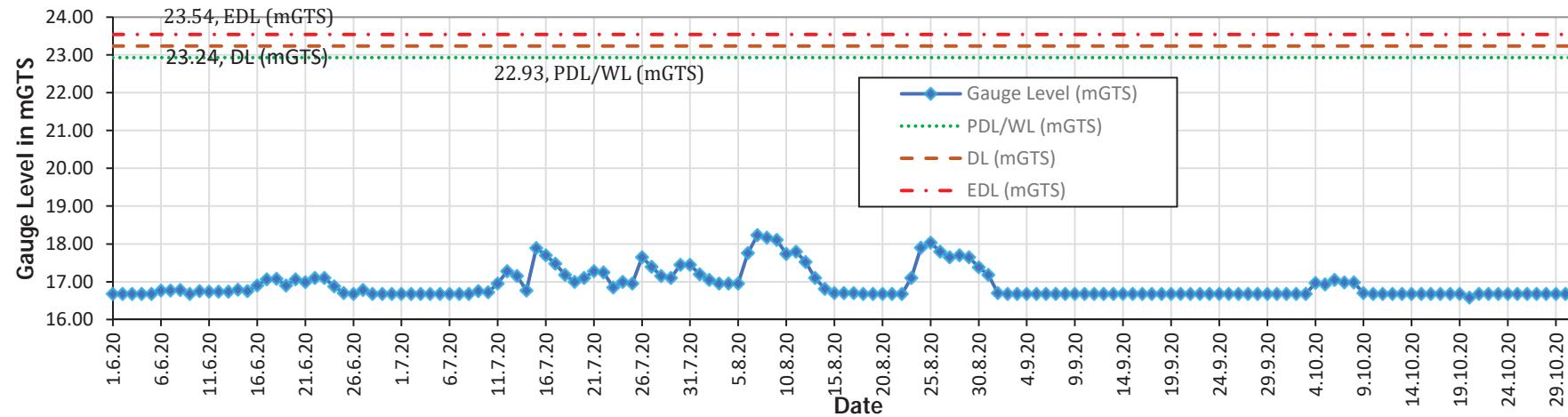
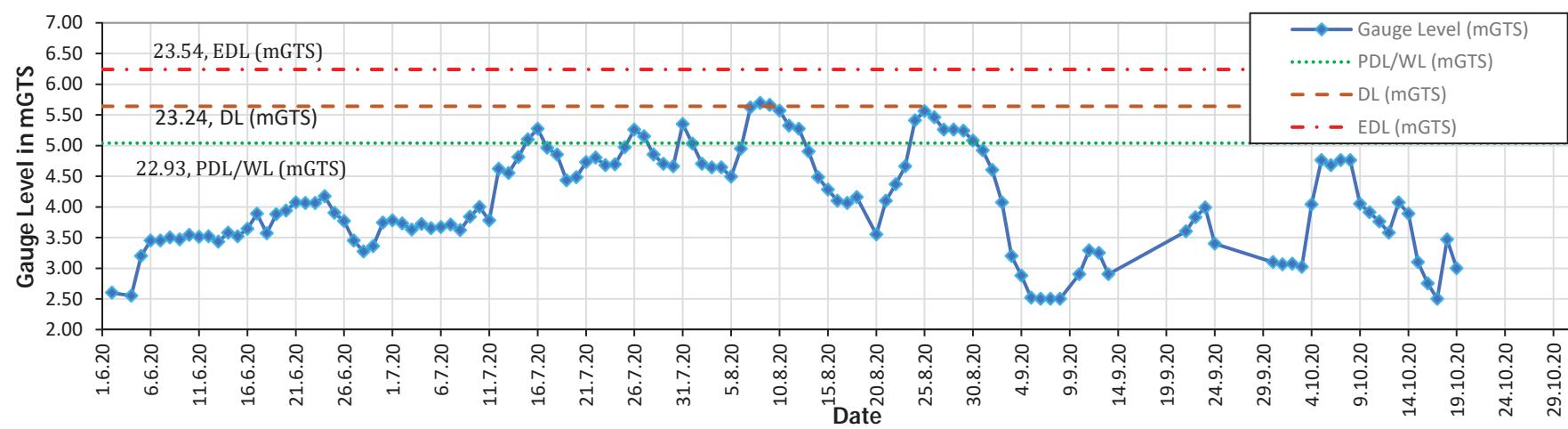
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Ichamati at RD Setu (Bongaon) during Flood Season 2020****Gauge Level of R. Jamuna at Gaighata during Flood Season 2020**

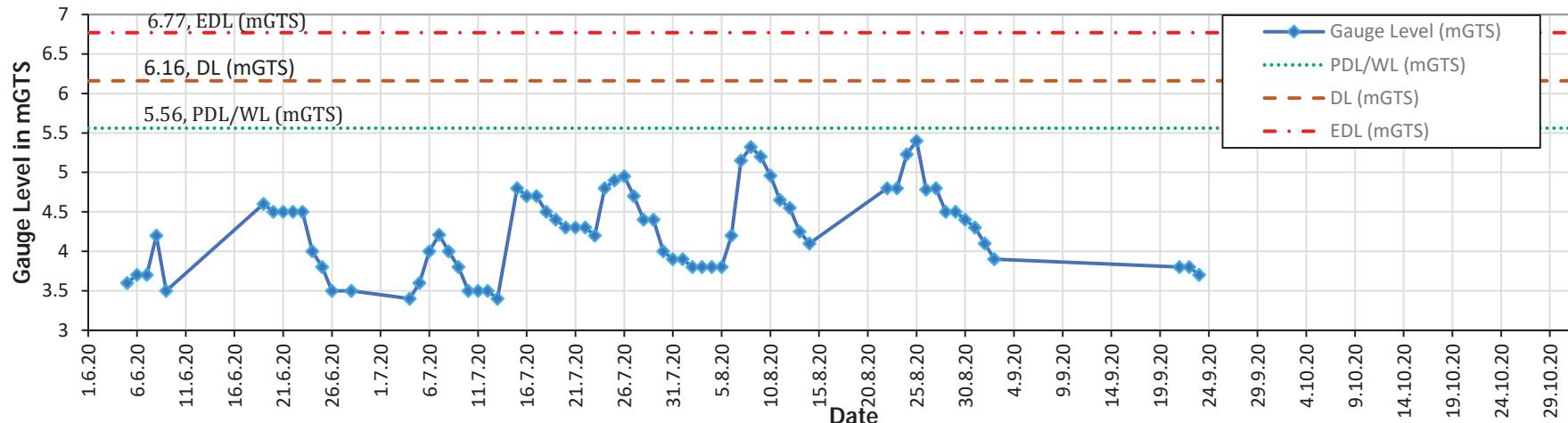
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Damodar at Rondiha during Flood Season 2020****Gauge Level of R. Damodar at Edilpur during Flood Season 2020**

Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Damodar at Jamalpur during Flood Season 2020****Gauge Level of Amta Channel at Amta during Flood Season 2020**

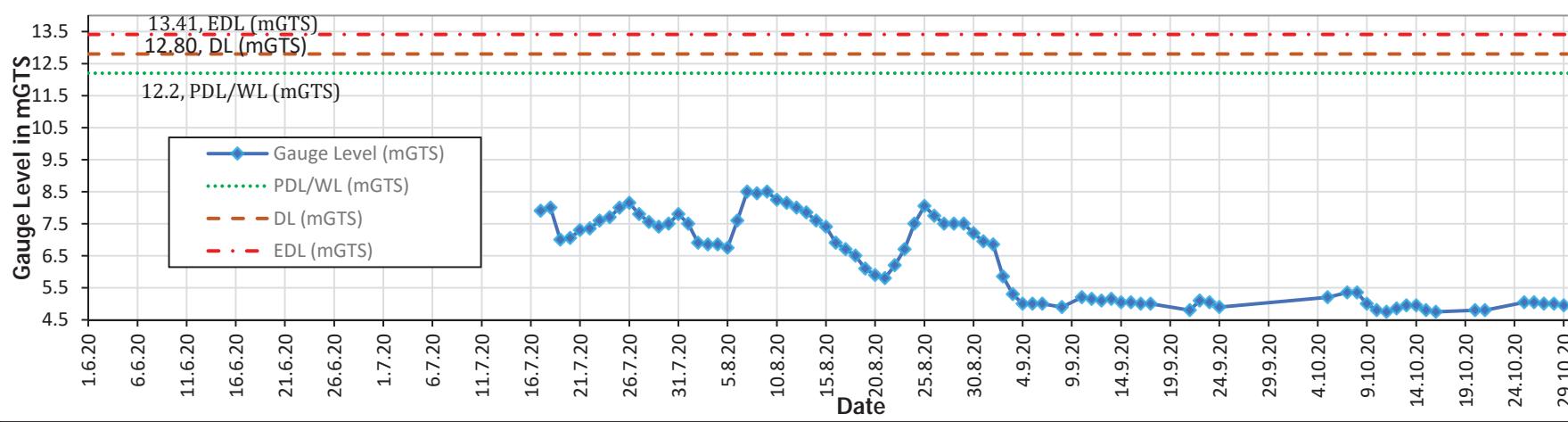
Annexure VIII-B: Gauge

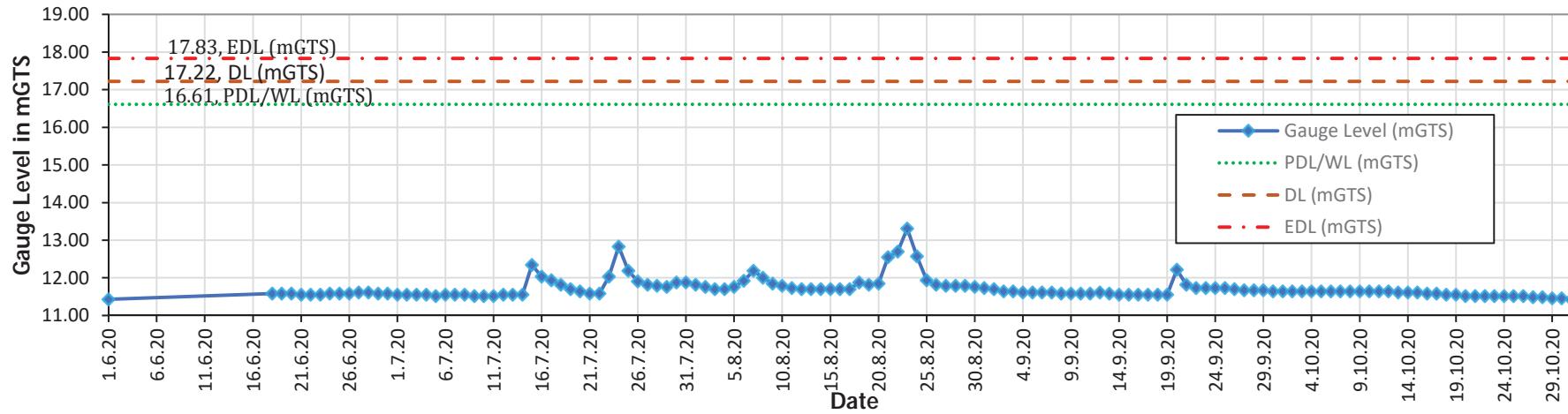
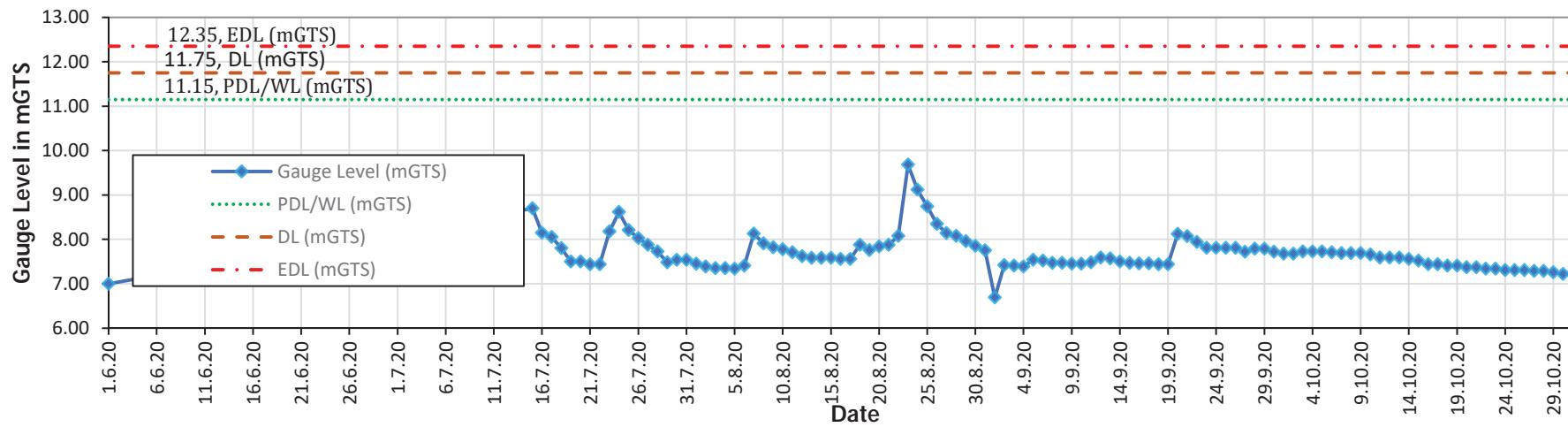
Levels of different Rivers of South Bengal during Flood Season 2020

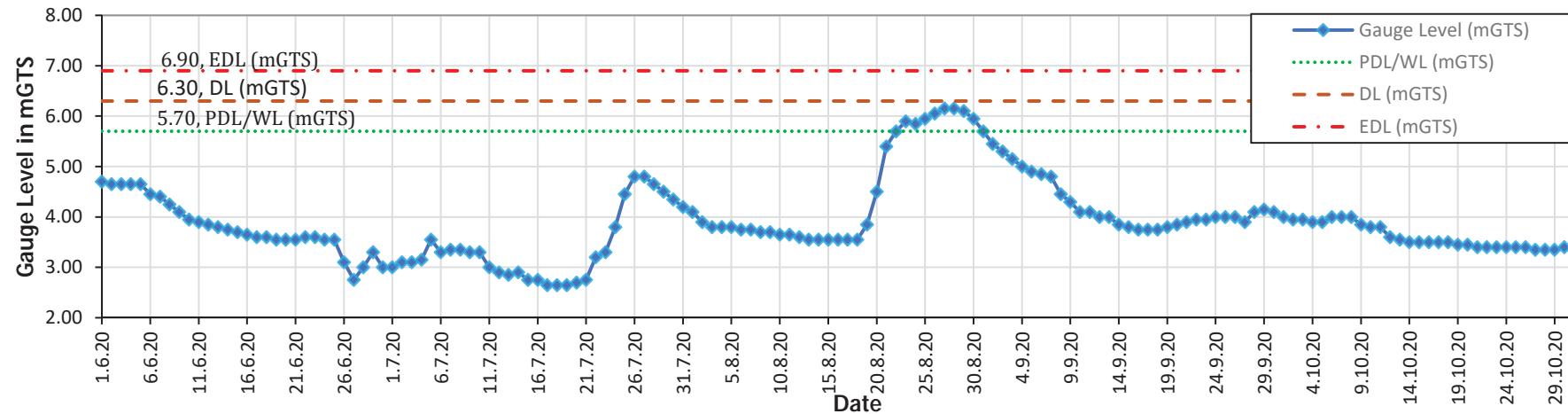
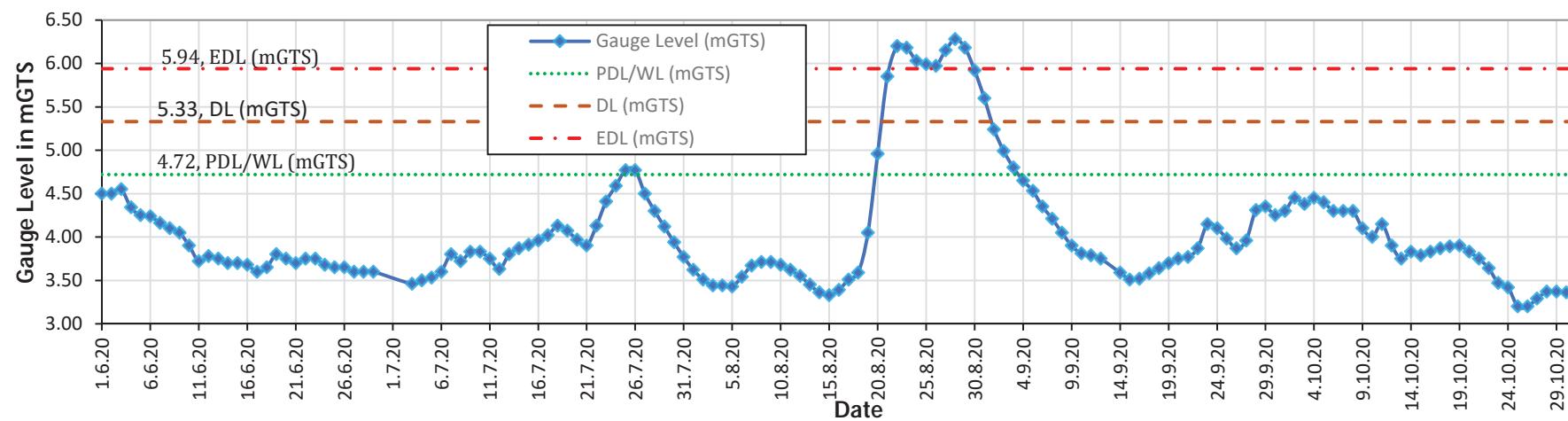
Gauge Level of Hurhura khal at Muchighata during Flood Season 2020



Gauge Level of R. Mundeswari at Harinkhola during Flood Season 2020

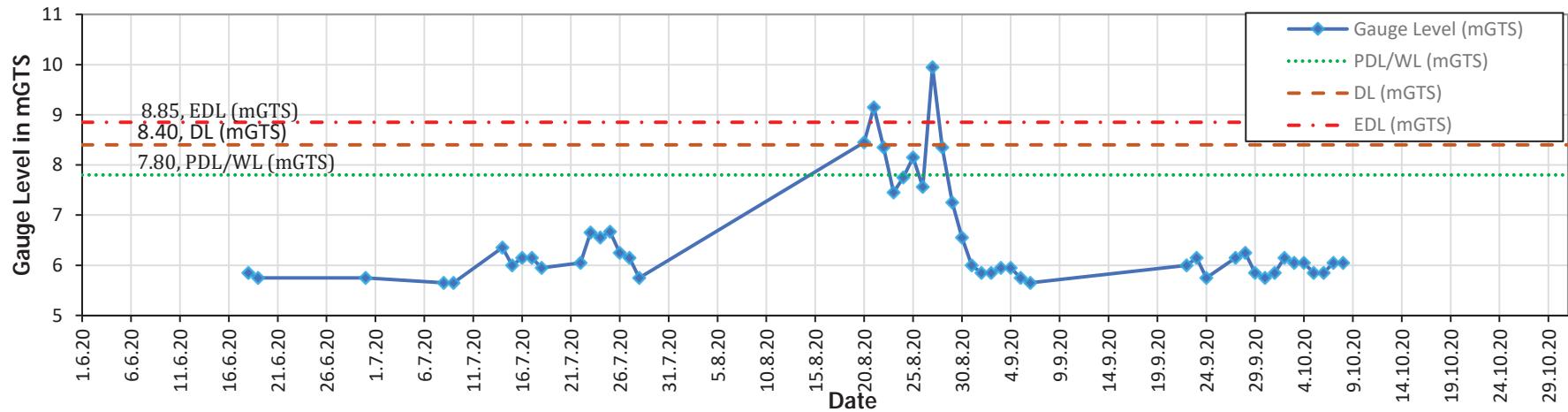


Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Dwarakeswar at Arambag during Flood Season 2020****Gauge Level of R. Dwarakeswar at Shakespore during Flood Season 2020**

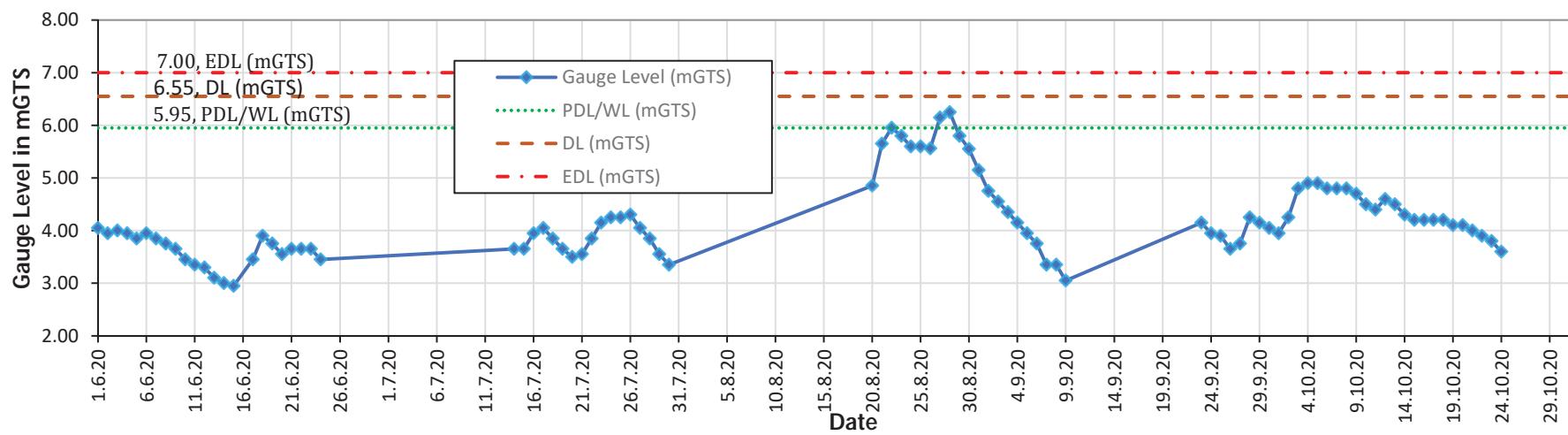
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Chandia at Barisha during Flood Season 2020****Gauge Level of R. Kapaleswari at Narayanbarh during Flood Season 2020**

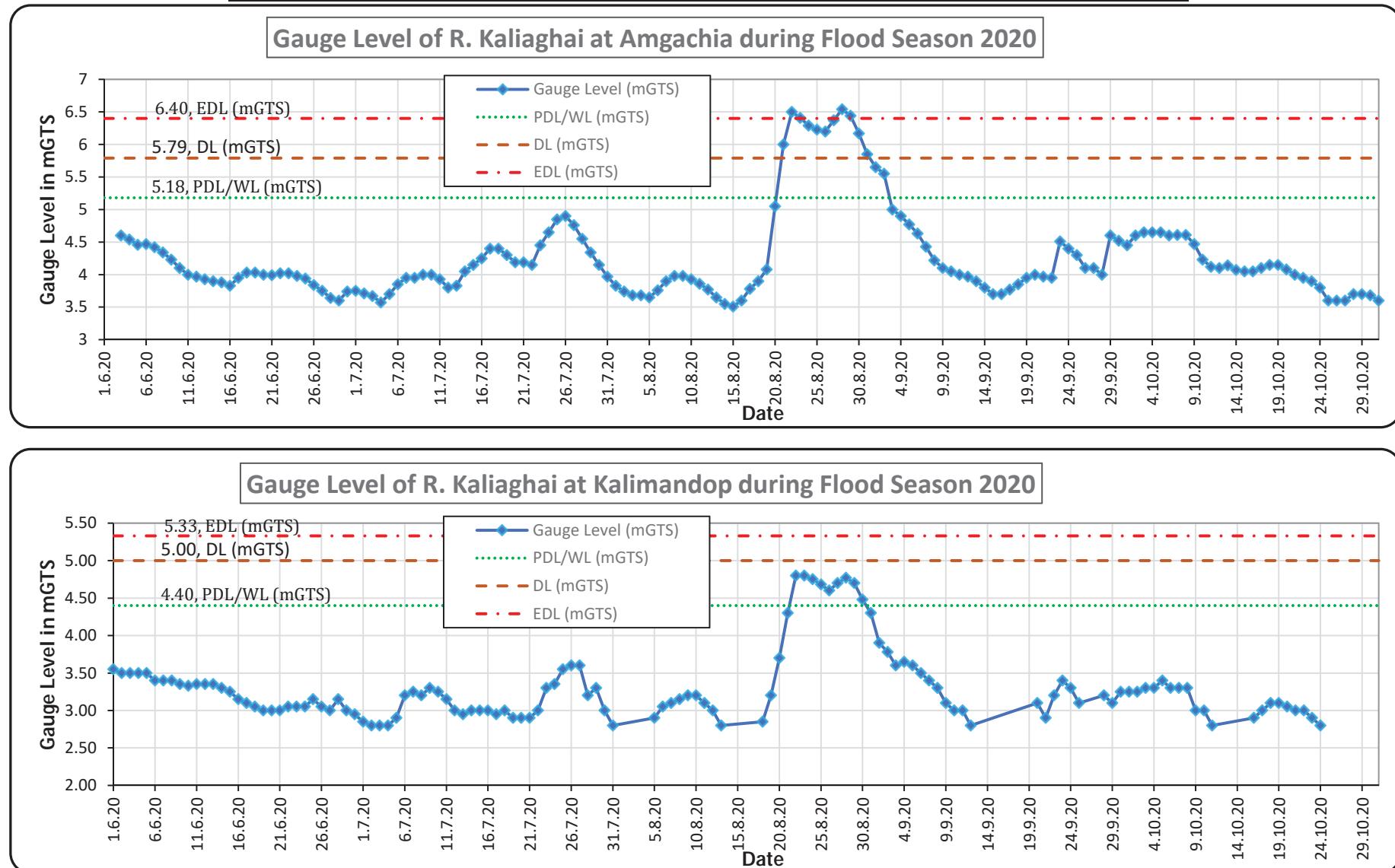
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

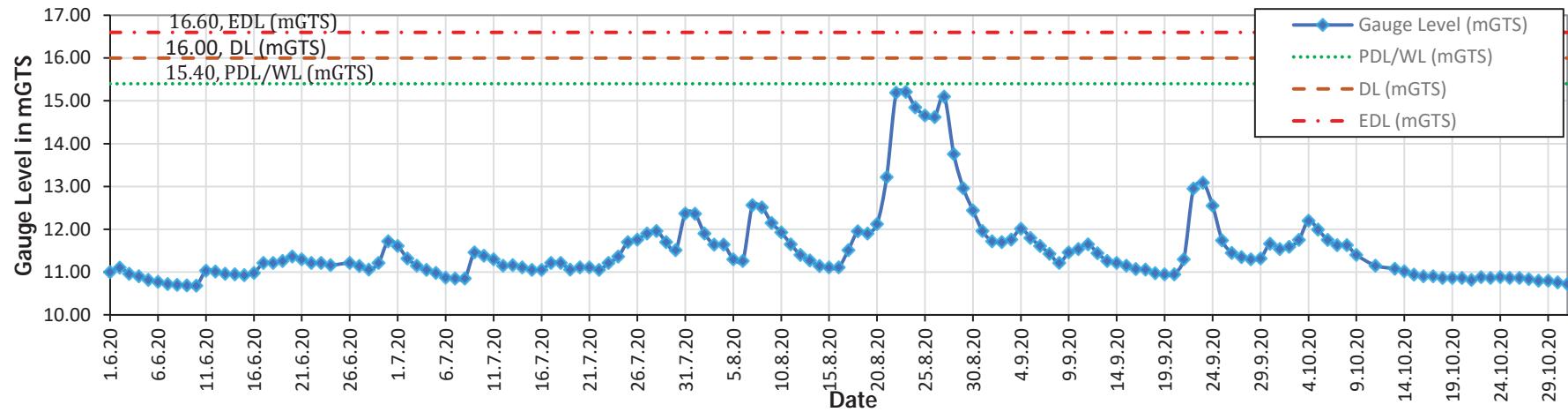
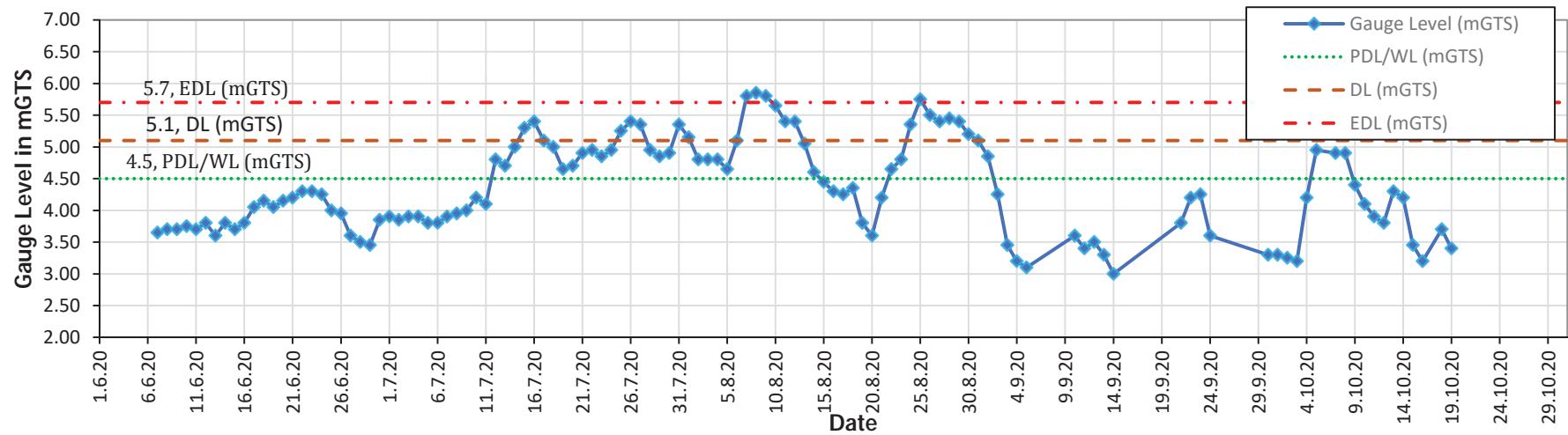
Gauge Level of R. Kaliaghai at Bakhrabad during Flood Season 2020



Gauge Level of R. Kaliaghai at Dehati during Flood Season 2020

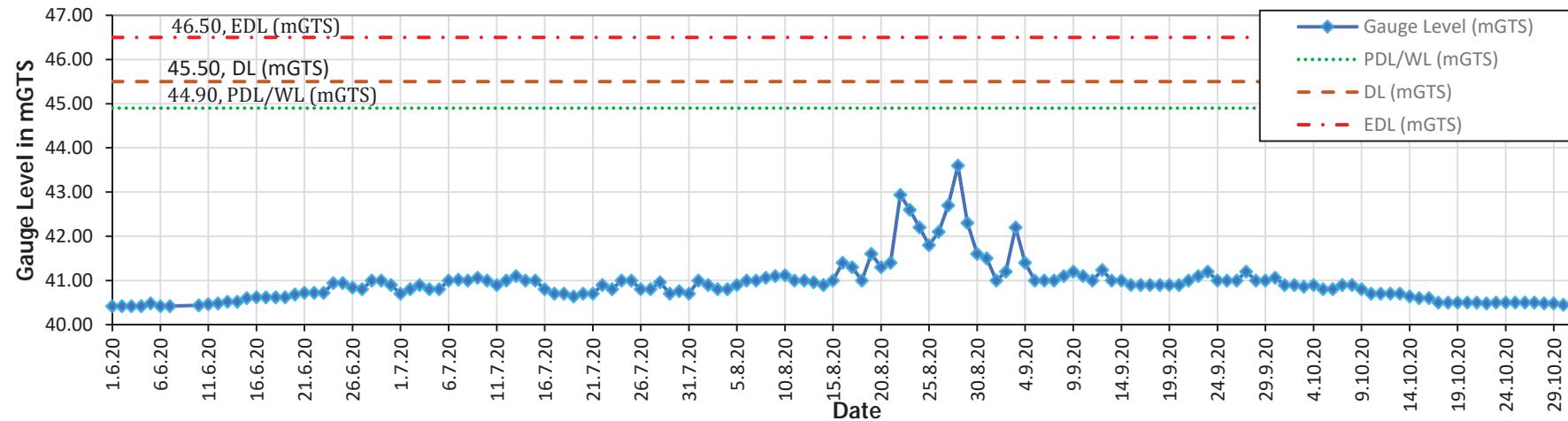


Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

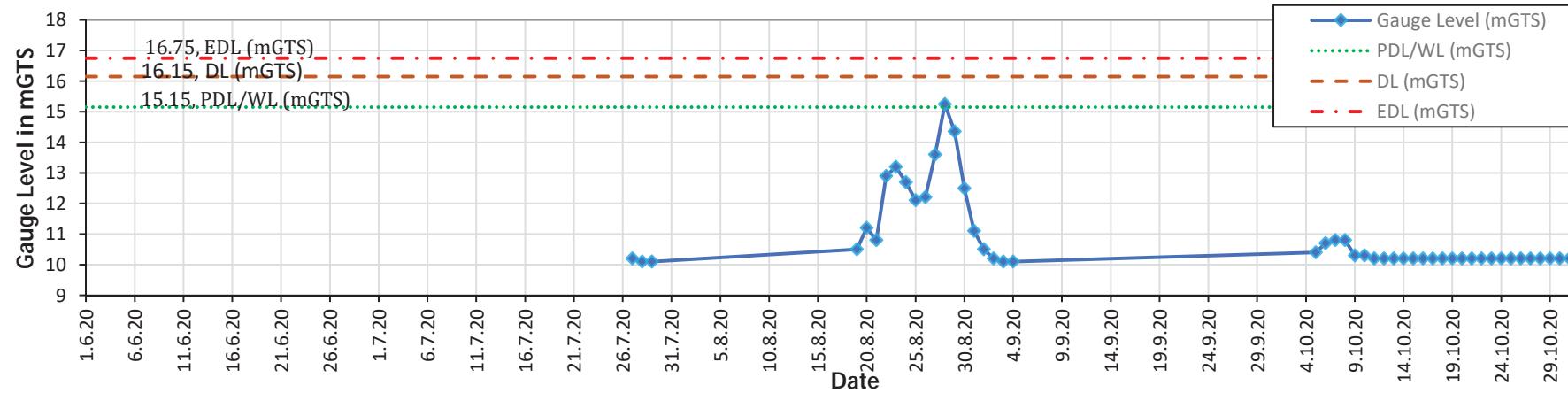
Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020**Gauge Level of R. Kangsabati at Kapastikri during Flood Season 2020****Gauge Level of Short Cut channel at Sehagori during Flood Season 2020**

Annexure VIII-B: Gauge Levels of different Rivers of South Bengal during Flood Season 2020

Gauge Level of R. Subarnarekha at Gopiballavpur during Flood Season 2020



Gauge Level of R. Subarnarekha at Sonakonia during Flood Season 2020



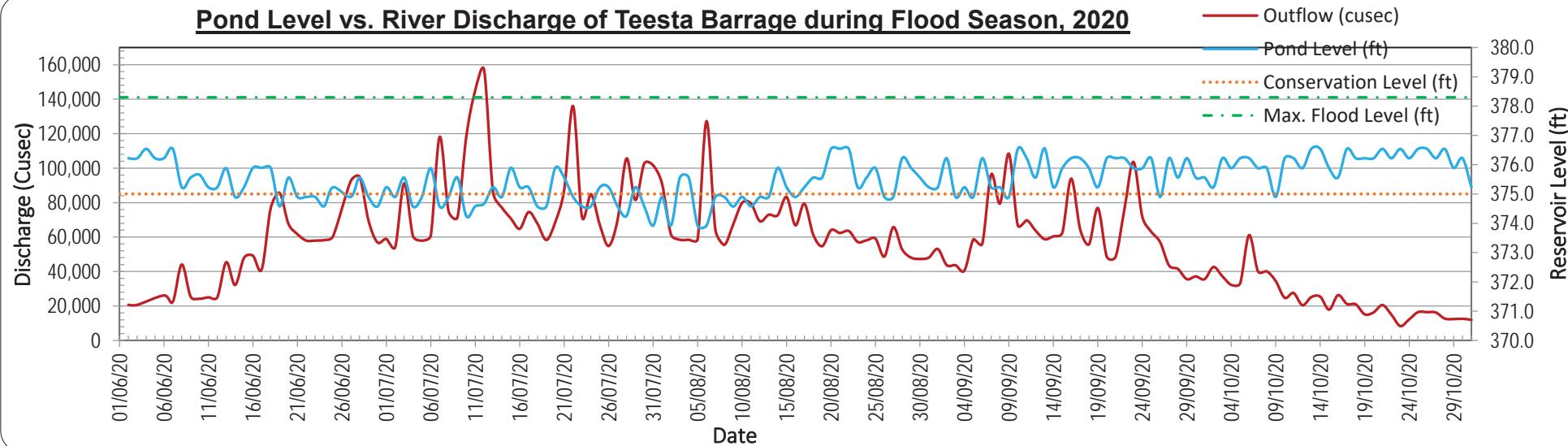
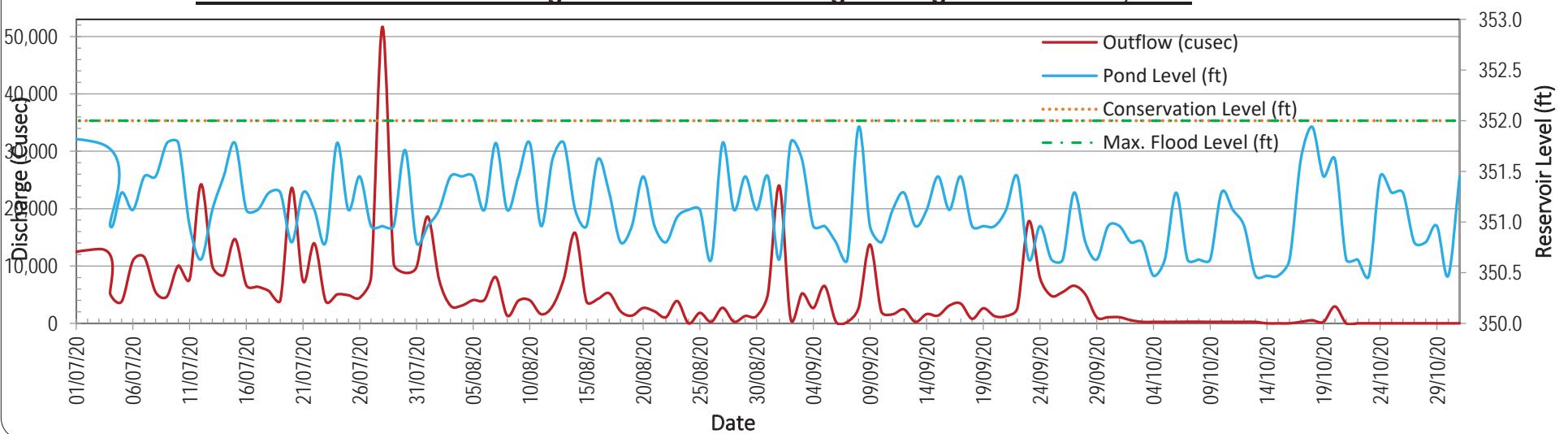
Annexure IX-A: Monthly Statistics of Dam-Barrage Operation during Flood Season, 2020

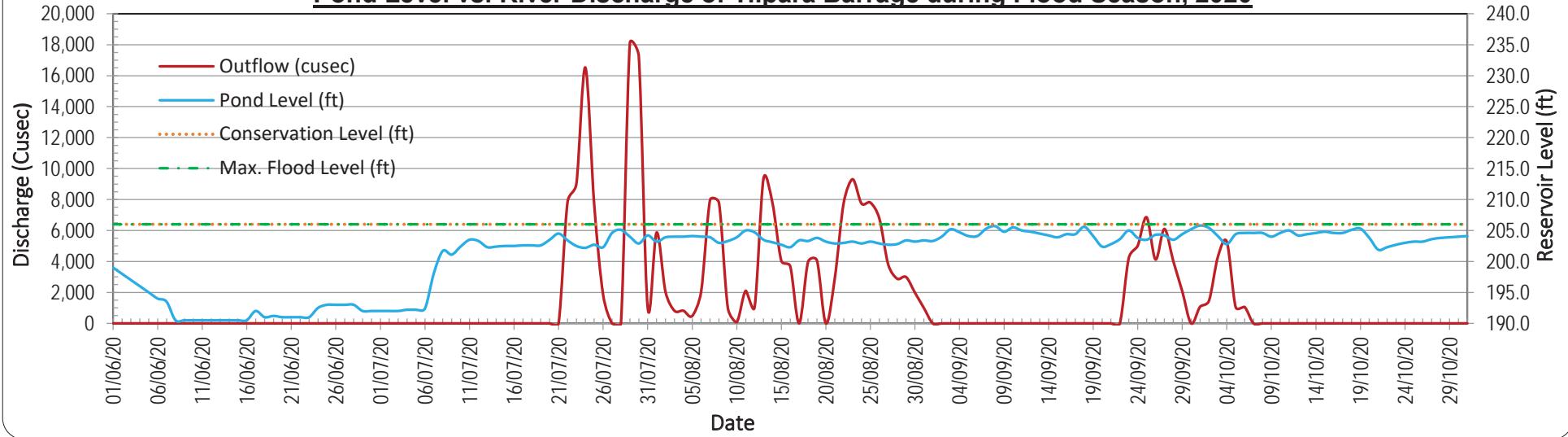
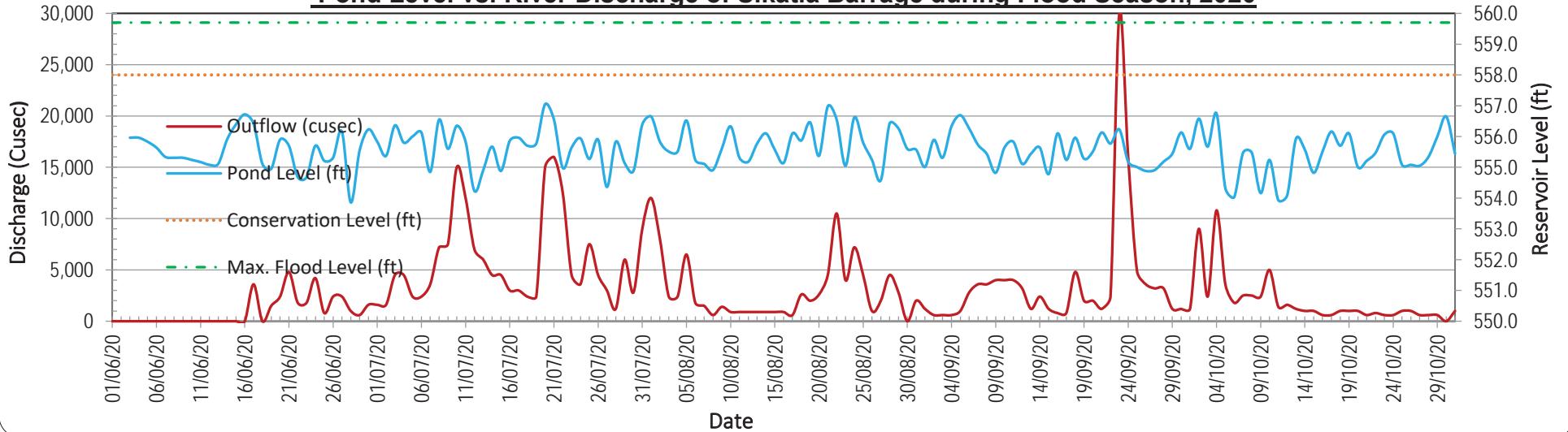
Sl. No.	River Basin	Name of Reservoir	Conservation Level (ft)	Max. Flood Level (ft)	Monthly Avg. Reservoir Level (ft)					Max.Res. Level (ft)	Min. Res. Level (ft)
					Jun-20	Jul-20	Aug-20	Sep-20	Oct-20		
1	Mayurakshi	Massanjore dam	398.00	398.00	374.76	386.13	389.89	388.80	387.10	391.40	372.75
2	Ajoy	Hinglow Dam	321.00	324.00	310.23	317.46	316.80	316.89	311.22	321.00	308.50
3	Damodar	Tenughat Dam	852.00	864.00	847.42	847.69	847.97	851.62	852.30	854.77	845.49
4	Damodar	Maithon Dam	480.00	495.00	472.42	471.95	473.82	484.61	489.44	490.84	466.00
5	Damodar	Panchet Dam	410.00	435.00	401.89	403.94	409.21	416.28	419.13	421.25	398.12
6	Kangsabati	Mukutmanipur	434.00	440.00	420.62	426.83	428.38	430.05	424.61	431.85	418.70
7	Subarnarekha	Chandil dam	630.00	630.00	587.29	590.23	592.31	592.35	591.87	593.98	586.44

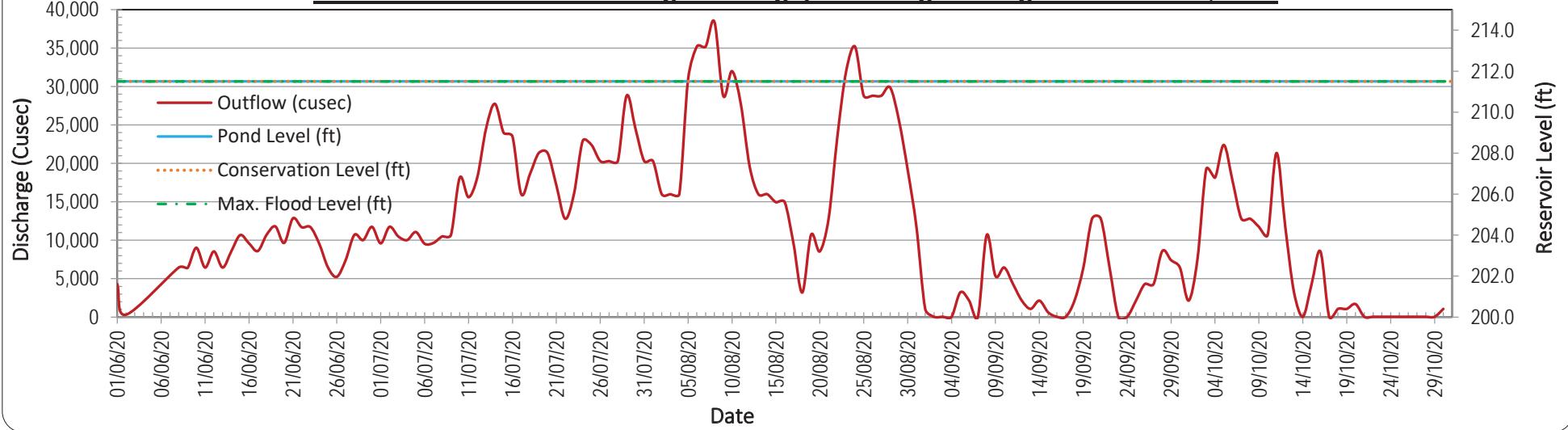
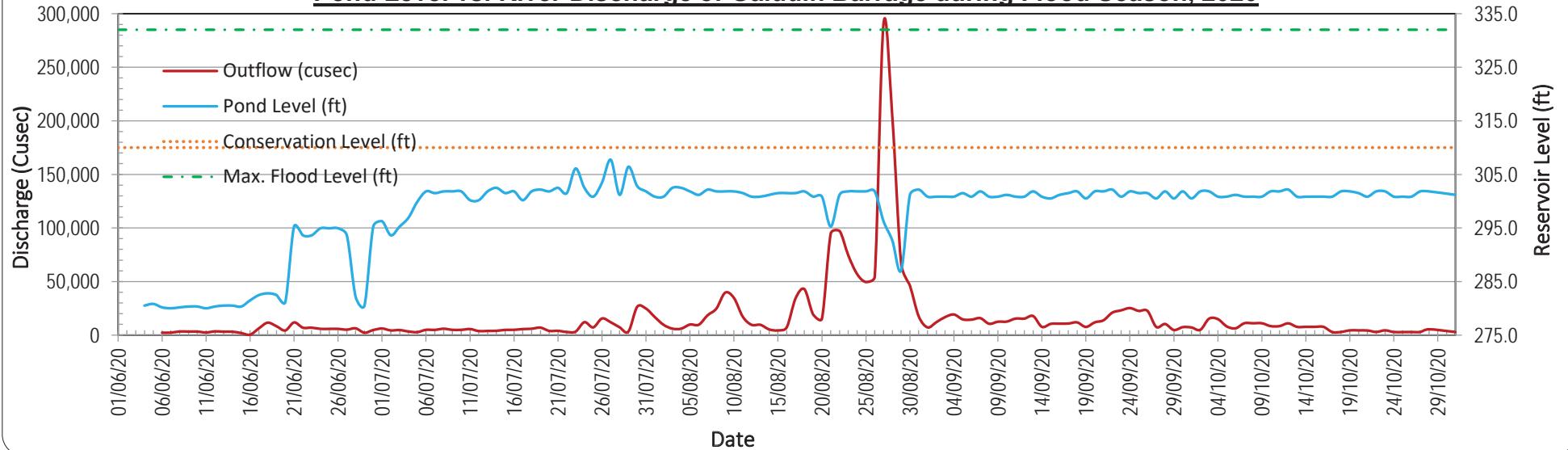
Sl. No.	River Basin	Name of Barrage	Max. Flood Level (ft)	Pond Level (ft)	Monthly Avg. Water Level (ft)					Max. Water Level (ft)	Min. Water Level (ft)
					Jun-20	Jul-20	Aug-20	Sep-20	Oct-20		
1	Mahananda	Mahananda Barrage	352.00	352.00	351.78	351.25	351.25	351.05	350.94	351.94	350.47
2	Teesta	Teesta Barrage	378.30	375.00	366.14	374.96	375.25	375.76	376.09	376.56	114.50
3	Mayurakshi	Tilpara Barrage	206.00	206.00	192.46	200.72	203.42	204.34	204.10	205.80	190.50
4	Ajoy	Sikatia Barrage	559.70	558.00	555.51	555.66	555.77	555.56	555.41	557.05	553.86
5	Damodar	Durgapur Barrage	211.50	211.50	211.50	211.50	211.50	211.50	211.50	211.50	211.50
6	Subarnarekha	Galudih Barrage	332.00	310.00	284.94	301.35	300.42	301.22	301.27	307.74	280.01

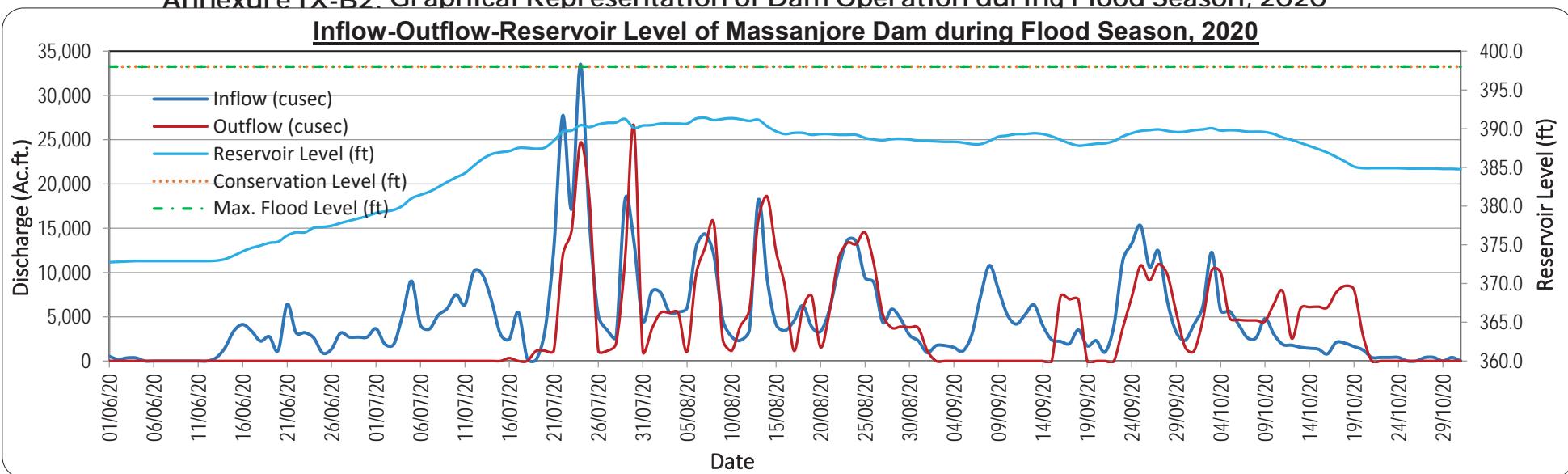
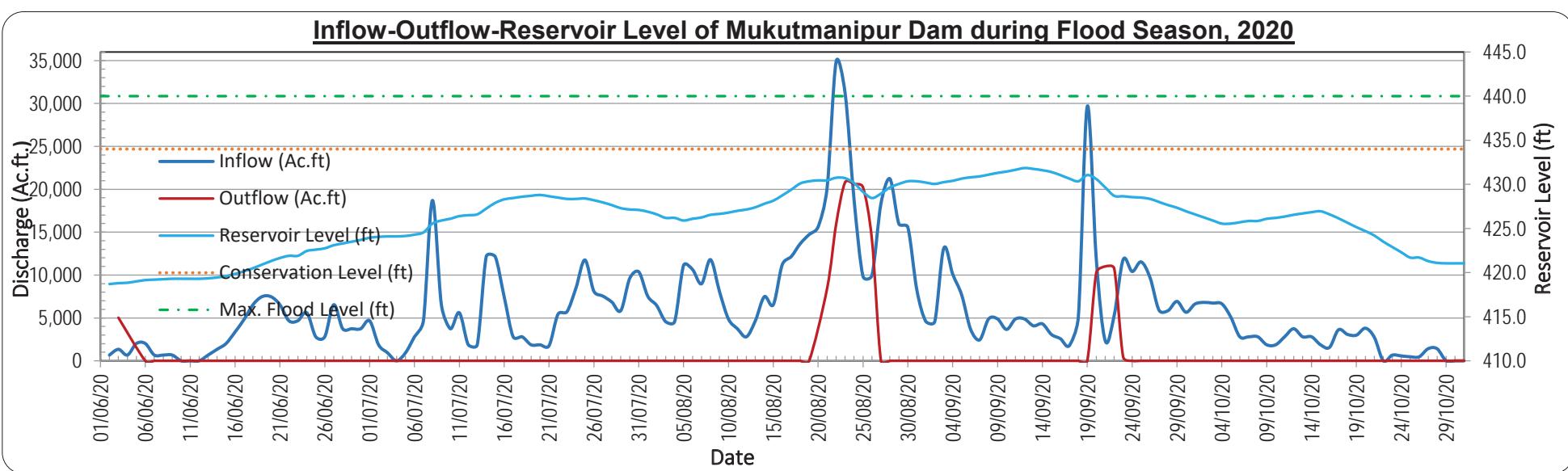
Name of Reservoir	Monthly Avg. Inflow (Acre-ft)					Max. Inflow (Ac.ft)	Min. Inflow (Ac.ft)	Monthly Avg. Outflow (Ac.ft)					Max. Outflow (Ac.ft)	Min. Outflow (Ac.ft)
	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20			Jun-20	Jul-20	Aug-20	Sep-20	Oct-20		
Massanjore Dam	1640	8072	7093	5183	2247	33,524	0	0	3766	7521	2701	3792	26,560	0
Hinglow Dam	209	1039	1248	624	71	5,300	0	0	1015	1038	548	241	7,000	0
Tenughat Dam	2094	7042	12383	7525	4978	23,815	0	3455	6542	12652	5780	4741	29,444	0
Maithon Dam	5819	13286	16778	10686	8225	52,445	0	7276	13309	14638	4204	9710	30,588	0
Panchet Dam	5932	15723	26091	13914	9804	43,454	0	7219	13414	22737	9917	11223	34,577	0
Mukutmanipur Dam	2909	5704	12111	6906	2608	34,854	0	0	0	3228	1081	0	20,804	0
Chandil Dam	224	35	2732	0	367	84,705	0	566	4193	24817	15402	4309	78,390	0

Name of Barrage	Design Discharge (cusec)	Monthly Avg. River Discharge down the Barrage (cusec)					Maximum River Discharge (cusec)	Minimum River Discharge (cusec)
		Jun-20	Jul-20	Aug-20	Sep-20	Oct-20		
Mahananda Barrage	80,000	2696	51,715	0	4345	275	51,715	0
Teesta Barrage	7,09,800	49608	156,767	8,361	62668	24273	1,56,767	8,361
Tilpara Barrage	3,00,000	0	18,094	0	1080	458	18,094	0
Sikatia Barrage		1376	30,000	0	3710	1903	30,000	0
Durgapur Barrage	5,50,000	8598	38,400	0	3778	6328	38,400	0
Galudih Barrage		4863	290,781	424	13817	6734	2,90,781	424

Annexure IX-B1: Graphical Representation of Barrage Operation during Flood Season, 2020**Pond Level vs. River Discharge of Teesta Barrage during Flood Season, 2020****Pond Level vs. River Discharge of Mahananda Barrage during Flood Season, 2020**

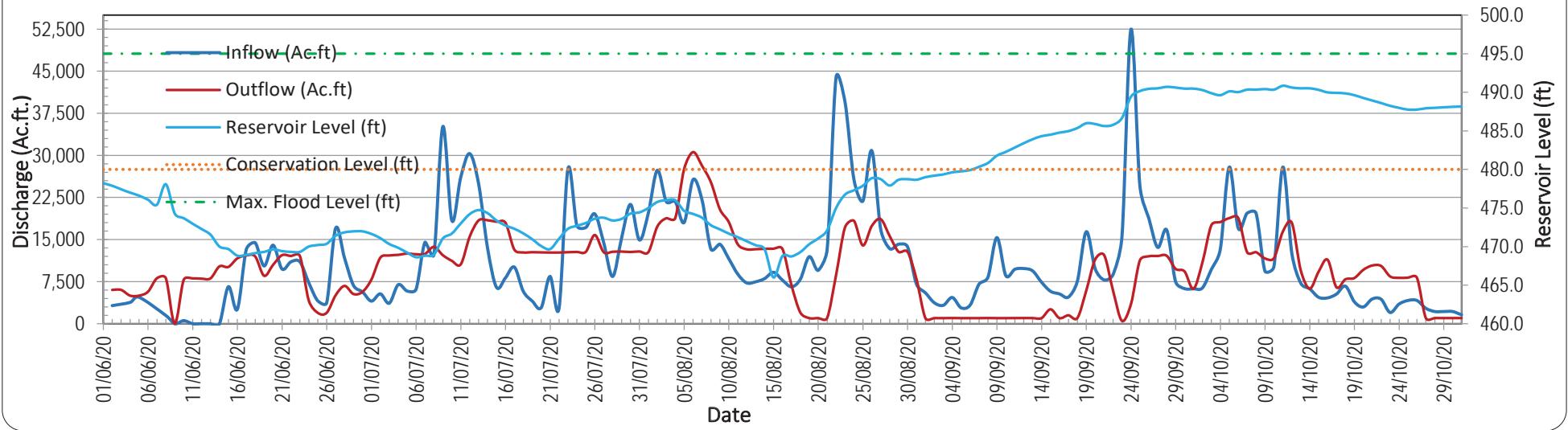
Annexure IX-B1: Graphical Representation of Barrage Operation during Flood Season, 2020**Pond Level vs. River Discharge of Tilpara Barrage during Flood Season, 2020****Pond Level vs. River Discharge of Sikatia Barrage during Flood Season, 2020**

Annexure IX-B1: Graphical Representation of Barrage Operation during Flood Season, 2020**Pond Level vs. River Discharge of Durgapur Barrage during Flood Season, 2020****Pond Level vs. River Discharge of Galudih Barrage during Flood Season, 2020**

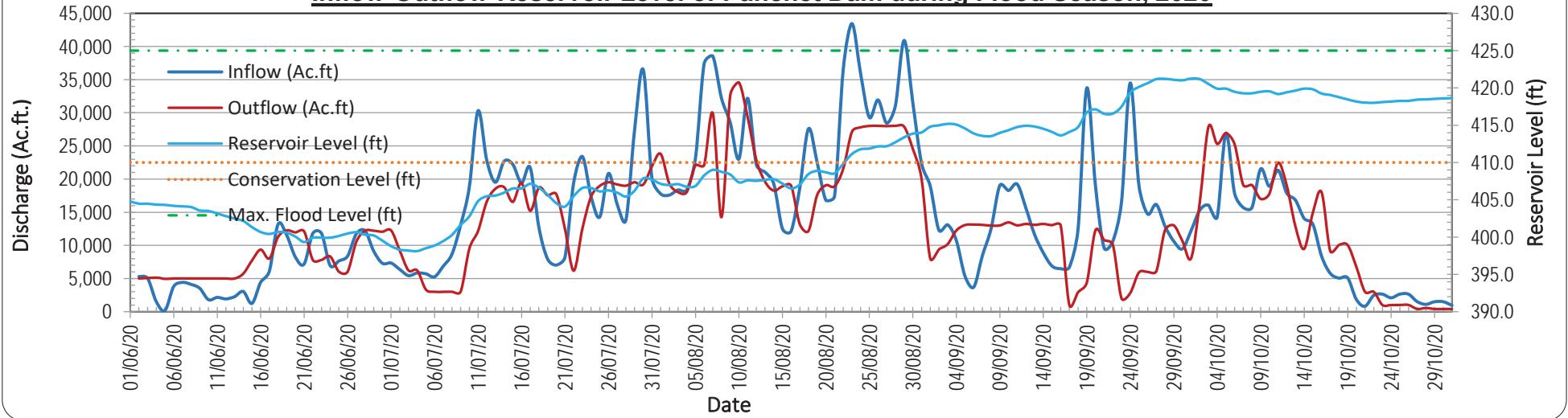
Annexure IX-B2: Graphical Representation of Dam Operation during Flood Season, 2020**Inflow-Outflow-Reservoir Level of Massanjore Dam during Flood Season, 2020****Inflow-Outflow-Reservoir Level of Mukutmanipur Dam during Flood Season, 2020**

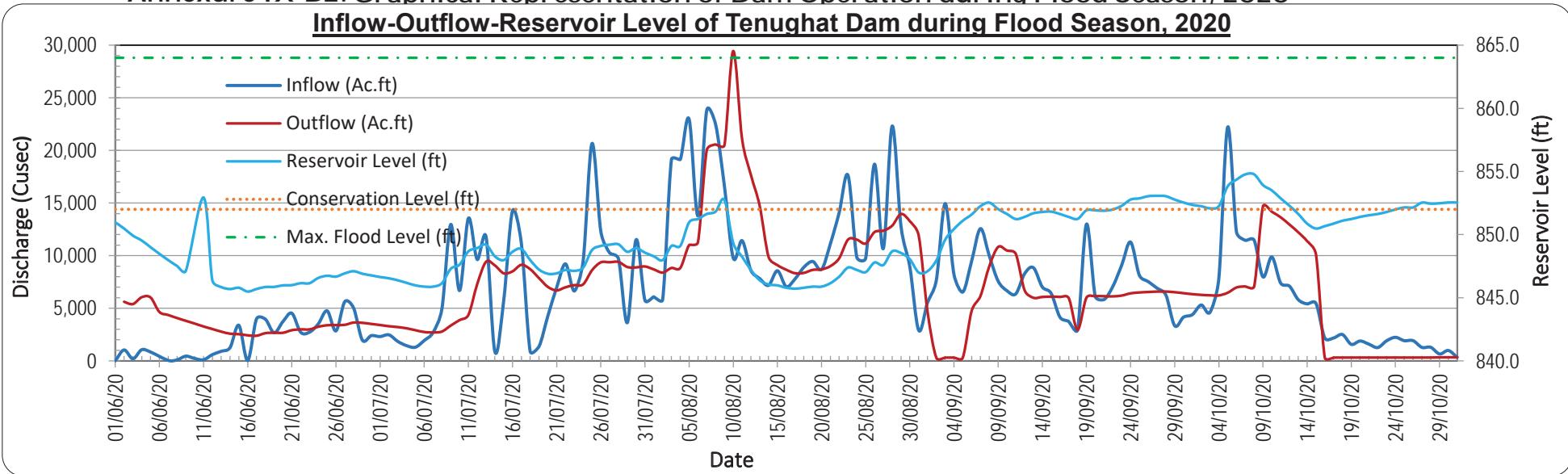
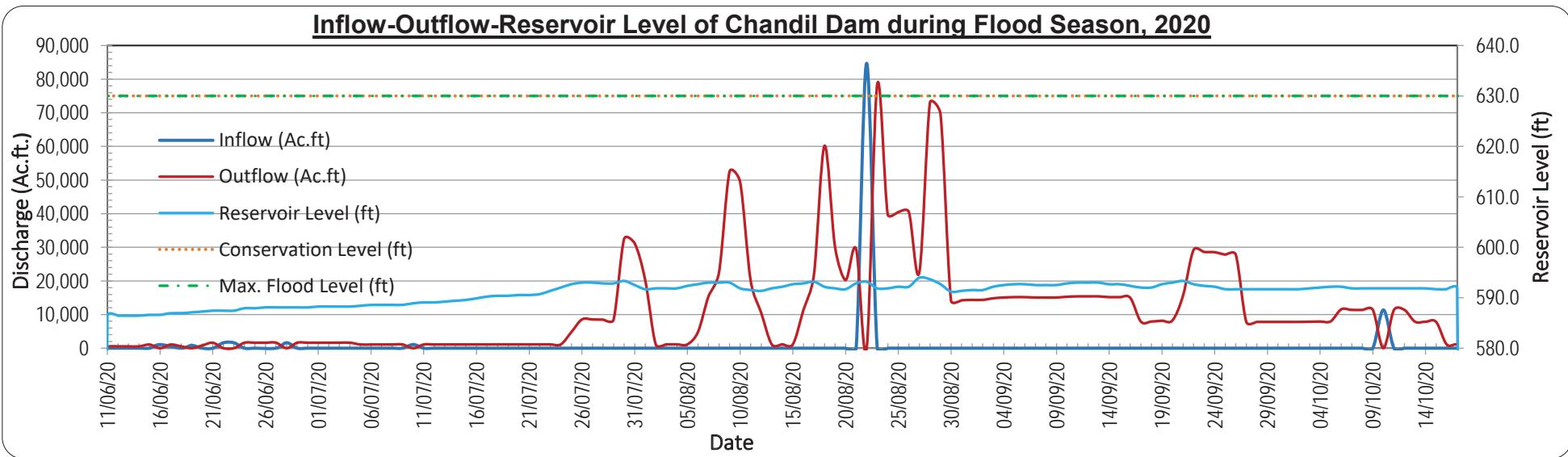
Annexure IX-B2: Graphical Representation of Dam Operation during Flood Season, 2020

Inflow-Outflow-Reservoir Level of Maithon Dam during Flood Season, 2020



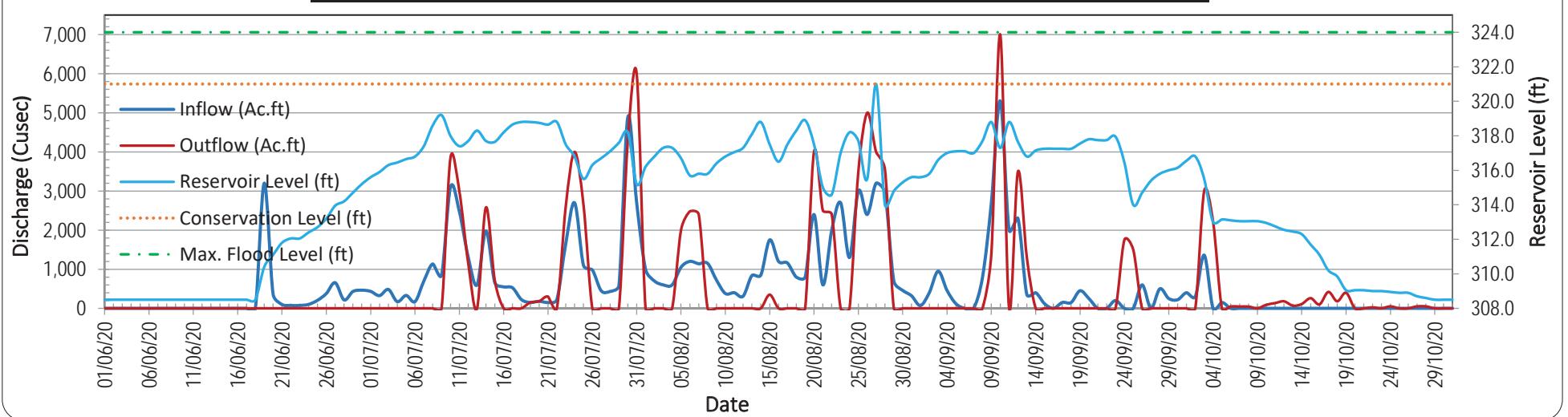
Inflow-Outflow-Reservoir Level of Panchet Dam during Flood Season, 2020



Annexure IX-B2: Graphical Representation of Dam Operation during Flood Season, 2020**Inflow-Outflow-Reservoir Level of Tenughat Dam during Flood Season, 2020****Inflow-Outflow-Reservoir Level of Chandil Dam during Flood Season, 2020**

Annexure IX-B2: Graphical Representation of Dam Operation during Flood Season, 2020

Inflow-Outflow-Reservoir Level of Hinglow Dam during Flood Season, 2020



Annexure – X: Flood Warning Signals in North Bengal Rivers during Monsoon 2020

Sl. No.	Name of River	Area	Date of Signal Imposed	Time of Signal Imposed	Type of Signal	Date of Signal Withdrawn	Time of Signal Withdrawn
1	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	18.06.2020	10:15	Yellow	18.06.2020	23:15
2	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	19.06.2020	9:10	Yellow	20.06.2020	7:40
3	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	25.06.2020	14:20	Yellow	27.06.2020	8:30
4	Mansai	Unprotected areas from Domohoni to Bangladesh border on both banks	27.06.2020	17:00	Yellow	29.06.2020	7:00
5	Teesta	Unprotected areas on both banks from Domohoni to Bangladesh border	27.06.2020	20:20	Yellow	28.06.2020	22:30
6	Raidak-I	Protected and unprotected areas on both banks from Tufanganj upto Bangladesh border	27.06.2020	21:00	Yellow	30.06.2020	16:00
7	Kaljani	Protected and unprotected areas on both banks	02.07.2020	8:00	Yellow	02.07.2020	13:00
8	Jaldhaka	Unprotected areas from NH 31 road crossing to Mathabhanga on both banks	02.07.2020	12:15	Yellow	02.07.2020	21:00
9	Mansai	Unprotected areas from Mathabhanga upto Bangladesh border	02.07.2020	21:00	Yellow	03.07.2020	18:00
10	Raidak-I	Protected and unprotected areas from Tufanganj upto Bangladesh border on both banks	02.07.2020	23:00	Yellow	05.07.2020	6:00
11	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	03.07.2020	10:20	Yellow	04.07.2020	5:10
12	Jaldhaka	Unprotected areas from NH 31 road crossing to Mathabhanga on both banks	03.07.2020	18:15	Yellow	04.07.2020	5:15
13	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	07.07.2020	8:15	Yellow	07.07.2020	18:30
14	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	08.07.2020	9:15	Yellow	08.07.2020	18:20
15	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	09.07.2020	23:20	Yellow	14.07.2020	17:20
16	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	10.07.2020	8:20	Red	10.07.2020	15:00
17	Teesta	Protected areas from Domohoni to Bangladesh border on both banks	10.07.2020	8:20	Yellow	10.07.2020	15:00
18	Jaldhaka	Protected and unprotected areas from NH 31 road crossing to Mathabhanga on both banks	10.07.2020	11:30	Yellow	13.07.2020	7:20
19	Mansai	Unprotected areas from Mathabhanga upto Bangladesh border on both banks	11.07.2020	1:00	Yellow	14.07.2020	9:00
20	Diana	At Chengmari on both banks	11.07.2020	10:30	Yellow	11.07.2020	19:30
21	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	11.07.2020	11:30	Red	11.07.2020	19:30
22	Teesta	Protected areas from Domohoni to Bangladesh border on both banks	11.07.2020	11:30	Yellow	11.07.2020	19:30
23	Torsa	Keshab Ashram upto Bangladesh Border	11.07.2020	17:00	Yellow	13.07.2020	18:00
24	Kaljani	Protected and unprotected areas of Alipurduar Municipality upto Shovaganj of Alipurduar Block I & II	11.07.2020	17:00	Yellow	12.07.2020	6:00
25	Mansai	Protected and unprotected areas from Mathabhanga upto Bangladesh border on both banks	11.07.2020	18:00	Yellow	14.07.2020	9:00
26	Mansai	Unprotected areas from Mathabhanga upto Bangladesh border on both banks	11.07.2020	20:00	Red	12.07.2020	8:00
27	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	12.07.2020	5:10	Red	13.07.2020	6:40
28	Teesta	Protected areas from Domohoni to Bangladesh border on both banks	12.07.2020	5:10	Yellow	13.07.2020	6:40
29	Kaljani	Protected and unprotected areas of Alipurduar Municipality upto Shovaganj of Alipurduar Block I & II	12.07.2020	9:00	Yellow	12.07.2020	21:00
30	Mansai	Unprotected areas from Mathabhanga upto Bangladesh border on both banks	12.07.2020	14:00	Red	12.07.2020	23:00
31	Raidak-I	Protected and unprotected areas from Tufanganj upto Bangladesh border on both banks	12.07.2020	16:00	Yellow	15.07.2020	9:00
32	Raidak-I	Protected and unprotected areas from Tufanganj upto Bangladesh border on both banks	13.07.2020	1:00	Red	13.07.2020	17:00
33	Teesta	Unprotected areas from Domohoni to Bangladesh border on both banks	17.07.2020	12:20	Yellow	18.07.2020	12:15

Sl. No.	Name of River	Area	Date of Signal Imposed	Time of Signal Imposed	Type of Signal	Date of Signal Withdrawn	Time of Signal Withdrawn
34	Raidak-I	Protected and unprotected areas from Tufanganj upto Bangladesh border on both banks	19.07.2020	11:00	Yellow	20.07.2020	7:00
35	Jaldhaka	Unprotected areas of NH-31 to Mathabhanga on both banks	20.07.2020	19:15	Yellow	23.07.2020	7:30
36	Teesta	Unprotected areas of Domohani to Bangladesh border both banks	20.07.2020	12:20	Yellow	21.07.2020	7:30
37	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	20.07.2020	23:15	Red	21.07.2020	7:30
38	Teesta	Protected areas of Domohani to Bangladesh Border on both banks	20.07.2020	23:15	Yellow	21.07.2020	7:30
39	Mansai	Unprotected areas at Mathabhanga upto Bangladesh border	21.07.2020	4:00	Yellow	23.07.2020	20:00
40	Teesta	Unprotected areas of Domohani to Bangladesh border both banks	21.07.2020	21:30	Yellow	23.07.2020	7:30
41	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	22.07.2020	4:15	Red	22.07.2020	14:30
42	Teesta	Protected areas of Domohani to Bangladesh Border on both banks	22.07.2020	4:15	Yellow	22.07.2020	14:30
43	Jaldhaka	Protected areas from NH 31 road crossing to Mathabhanga on both banks	22.07.2020	9:00	Yellow	23.07.2020	7:30
44	Mansai	Protected areas at Mathabhanga upto Bangladesh border	22.07.2020	7:00	Yellow	23.07.2020	13:00
45	Mansai	Unprotected areas at Mathabhanga upto Bangladesh border	22.07.2020	9:00	Red	22.07.2020	19:00
46	Kaljani	Protected and unprotected areas of Alipurduar Municipality upto Shovaganj of Alipurduar Block I & II	22.07.2020	10:00	Yellow	22.07.2020	12:00
47	Mansai	Protected areas from Mathabhanga upto Bangladesh border on both banks	22.07.2020	10:00	Red	22.07.2020	17:00
48	Jaldhaka	Unprotected areas from NH 31 road crossing to Mathabhanga on both banks	28.07.2020	13:10	Yellow	29.07.2020	5:30
49	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	28.07.2020	6:50	Yellow	29.07.2020	7:30
50	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	30.07.2020	9:10	Yellow	31.07.2020	19:20
51	Jaldhaka	Unprotected areas from NH 31 road crossing to Mathabhanga on both banks	01.08.2020	11:30	Yellow	02.08.2020	6:20
52	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	01.08.2020	8:40	Yellow	02.08.2020	6:15
53	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	06.08.2020	6:30	Yellow	06.08.2020	19:30
54	Jaldhaka	Unprotected areas from NH 31 road crossing to Mathabhanga on both banks	14.08.2020	11:30	Yellow	14.08.2020	17:30
55	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	07.09.2020	6:50	Yellow	09.09.2020	17:50
56	Kaljani	Protected and unprotected areas of Alipurduar district	14.09.2020	16:30	Yellow	14.09.2020	21:30
57	Kaljani	Protected and unprotected areas of Alipurduar district	15.09.2020	17:00	Yellow	15.09.2020	19:30
58	Mansai	Unprotected area from Mathabhanga upto Bangladesh border	15.09.2020	1:00	Yellow	17.09.2020	10:00
59	Mansai	Protected and unprotected areas from Mathabhanga upto Bangladesh	15.09.2020	6:00	Yellow	17.09.2020	5:00
60	Raidak-I	Protected and unprotected areas from Tufanganj upto Bangladesh border	15.09.2020	14:00	Yellow	18.09.2020	16:00
61	Jaldhaka	Unprotected areas from NH 31 to Mathabhanga on both banks	16.09.2020	10:30	Yellow	16.09.2020	18:50
62	Jaldhaka	Unprotected areas from NH 31 to Mathabhanga on both banks	23.09.2020	11:30	Yellow	24.09.2020	8:50
63	Jaldhaka	Protected areas from NH 31 to Mathabhanga on both banks	23.09.2020	12:40	Yellow	24.09.2020	8:50
64	Mansai	Unprotected area from Mathabhanga upto Bangladesh border	23.09.2020	22:00	Yellow	25.09.2020	8:00
65	Teesta	Unprotected areas of Domohani to Bangladesh Border on both banks	23.09.2020	5:30	Yellow	24.09.2020	8:30
66	Mansai	Protected and unprotected areas from Mathabhanga upto Bangladesh	24.09.2020	1:00	Yellow	25.09.2020	1:00
67	Jaldhaka	Unprotected areas from NH 31 to Mathabhanga on both banks	25.09.2020	23:40	Yellow	26.09.2020	8:15

Annexure XI-A: Primary Damage Statement due to Super Cyclone "Amphan" on 20.05.2020

District	Block	Length of damaged river embankment in the form of slips, subsidence (excluding breaches) due to heavy rainfall, wave action &	Length of damaged sea dyke in the form of slips, subsidence (excluding breaches) due to heavy rainfall, wave action &	Total Length (in Km)	Breaches to embankments /sea dykes	
		No.	Length (in Km)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Purba Medinipur	Ramnagar-I	0.00	0.80	0.80	0	0.00
	Ramnagar-II	0.00	0.95	0.95	0	0.00
	Deshpran	0.00	0.70	0.70	0	0.00
	Khejuri-II	1.50	0.00	1.50	0	0.00
	Nandigram-II	1.50	0.00	1.50	0	0.00
	Moyna	0.36	0.00	0.36	0	0.00
	Panskura	0.25	0.00	0.25	0	0.00
	Mahisadal	0.41	0.00	0.41	0	0.00
	Shahid Matangini	0.70	0.00	0.70	0	0.00
	Kolaghat	0.25	0.00	0.25	0	0.00
Total: Purba Medinipur		4.97	2.45	7.42	0.00	0.00
Paschim Medinipur	Pingla	1.45	0.00	1.45	0	0.00
Total : Paschim Medinipur		1.45	0.00	1.45	0	0.00
North 24 Parganas	Baduria	0.36	0.00	0.36	3	0.08
	Minakhan	0.30	0.00	0.30	1	0.10
	Basirhat-I	0.73	0.00	0.73	5	0.16
	Basirhat-II	0.10	0.00	0.10	1	0.02
	Hasnabad	2.07	0.00	2.07	3	0.15
	Sandeshkhali-I	2.67	0.00	2.67	3	0.13
	Sandeshkhali-II	4.10	0.00	4.10	11	0.65
	Hingalganj	12.67	0.00	12.67	12	0.67
	Total: North 24 Parganas	23.00	0.00	23.00	39	1.96
South 24 Parganas	Sagar	0.00	2.31	2.31	0	0.00
	Kakdwip	1.55	0.00	1.55	0	0.00
	Namkhana	4.90	0.00	4.90	2	1.00
	Patharpratima	6.20	0.00	6.20	4	2.30
	Gosaba	18.00	0.00	18.00	8	0.56
	Basanti	8.00	0.00	8.00	4	0.28
	Kultali	3.50	0.00	3.50	9	1.60
	Mathurapur-II	2.50	0.00	2.50	5	0.50
	Canning-II	6.00	0.00	6.00	0	0.00
	Maheshtala-Thakurpukur	0.80	0.00	0.80	0	0.00
	Budgebudge-I	1.80	0.00	1.80	0	0.00
	Budgebudge-II	0.95	0.00	0.95	0	0.00
	Diamandharbour	1.40	0.00	1.40	0	0.00
	Kulpi	1.10	0.00	1.10	0	0.00
	Total: South 24 Parganas	56.70	56.70	59.01	32	6.24
Howrah	Uluberia Municipality	2.11	0.00	2.11	0	0.00
	Uluberia-I	0.40	0.00	0.40	0	0.00
	Shyampur-I	0.08	0.00	0.08	0	0.00
	Shyampur-II	0.21	0.00	0.21	0	0.00
	Sankrail	0.71	0.00	0.71	0	0.00
	Bagnan-I	0.60	0.00	0.60	0	0.00
	Bagnan-II	0.40	0.00	0.40	0	0.00
	Amta-I	0.04	0.00	0.04	0	0.00
	Amta-II	0.61	0.00	0.61	0	0.00
	Total: Howrah	5.16	0.00	5.16	0	0.00
Grand Total (5 Districts)		91.28 km	4.76 km	96.04	71	8.20

Annexure XI-B: Flood Damage Report due during Monsoon 2020
District-wise Flood Damage Report during Flood Season, 2020

Sl. No. / Channel	Name of River / Channel	District	Block / PS	Location of Damage (GP / Village / Mouza)	Nature and extent of Damages					Inundated / water logged Area (Sq. Km.)	Reference
					Breac h (m)	Slip/ Subsidenc e /Erosion (m)	Protectiv e works (m)	No. of Damage d Structur es (Sluices / Bridge	Cost of Damagees (Rs. In Lakhs)		
1	Kaljani	Alipurduar	Block-Alipurduar-I, PS-	Topsikhata, APD-I	-	-	300	-	10.08	-	Email from EE- Coochbehar (I) Division Dated 15.02.2021
	Kaljani	Alipurduar	Block-Alipurduar-I, PS-	Chokoakheti, APD-I	-	-	200	-	11.24	-	
	Kaljani	Alipurduar	Block-Alipurduar-I, PS-	Chokoakheti, APD-I	-	220	-	-	12	-	
	Kaljani	Alipurduar	Block-Alipurduar-II, PS-	Chengpara, APD-II	-	-	100	-	10	-	
	Kaljani	Alipurduar	Block-Alipurduar-II, PS-	Chengpara, APD-II	-	200	-	-	10	-	
	Kaljani	Alipurduar	Block-Alipurduar-II, PS-	Shovaganj, APD-II	-	300	-	-	10.29	-	
	Kaljani	Alipurduar	Block-Alipurduar-II, PS-	Shovaganj, APD-II	-	-	300	-	6.22	-	
	Kaljani	Alipurduar	Block: Kalchini	Latabari, Kalchini	-	150	-	-	6.65	-	
	Torsa	Alipurduar	Block and PS: Kalchini	Subhasini embkt, Kalchini	-	-	300	-	50.5	-	
	Torsa	Alipurduar	Block and PS: Kalchini	Dalsingpara embkt, Kalchini	-	-	300	-	26.5	-	
	Torsa	Alipurduar	Block: Alipurduar-I PS-	Deodanga, Patlakhawa /APD-I	-	150	-	-	15	-	
	Pana	Alipurduar	Block and PS: Kalchini	Radharani embkt. Kalchini	-	250	250	-	6.99	-	
	Basra	Alipurduar	Block and PS: Kalchini	Gaburbasra embkt., Kalchini	-	250	250	-	29.4	-	
	Dima	Alipurduar	Alipurduar Municipality,	Vidyasagar pally, ward no.-IX,	-	200	-	-	6.22	-	
	Dima	Alipurduar	Block:Alipurduar-II, PS-	Bachukumari/APD-II	-	280	-	-	8.66	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Falakata town protective	-	-	100	-	12	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Dalimpur jateswar-II, Falakata	-	-	120	-	5	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Sanyasipara, Falakata	-	175	-	-	10	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Shiretore, Falakata	-	450	-	-	10	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Uttar Deogaon, Falakata	-	200	-	-	15	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Guabagan Kalibari, Nabanagar	-	280	-	-	19.71	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Paritala, Falakata	-	-	175	-	13	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Nabanagar, Falakata	-	-	700	-	20.5	-	
	Mujnai	Alipurduar	Block and PS:Falakata	Daspara, Falakata	-	250	-	-	8.44	-	
	Kalkut	Alipurduar	Block-Alipurduar-II,PS-	Dakshin panialguri, APD-II	-	700	-	-	15.21	-	
	Kalkut	Alipurduar	Block-Alipurduar-II,PS-	Kailupara, APD-II	-	380	-	-	9.83	-	

	Kalkut	Alipurduar	Block-Alipurduar-II,PS-	Majherdabri, APD-II	-	120	-	-	6.49	-	
	Kalkut	Alipurduar	Block-Alipurduar-II,PS-	Uttar Majherdabri, APD-II	-	750	-	-	20	-	
2	Teesta	Coochbehar	Mekhliganj	76 Niztaraf	-	235	-	-	25	-	Email from SE-NEIC-I, Date-03.03.2021
	Teesta	Coochbehar	Mekhliganj	40 Niztaraf	-	310	-	-	30	-	
	Teesta	Coochbehar	Mekhliganj	72 Niztaraf	-	-	220	-	18	-	
	Teesta	Coochbehar	Mekhliganj	Kutchlibari	-	-	140	-	15	-	
	Teesta	Coochbehar	Haldibari	Jharsingheswar	-	-	140	-	18	-	
	Teesta	Coochbehar	Haldibari	Kamat Para	-	-	85	-	10	-	
	Teesta	Coochbehar	Haldibari	74 Niztaraf	-	-	140	-	10	-	
	Teesta	Coochbehar	Haldibari	Bibiganj	-	-	90	-	15	-	
	Teesta	Coochbehar	Haldibari	Bajejama	-	-	140	-	18	-	
	Jaldhaka	Coochbehar	Mekhliganj	Ranirhut	-	-	70	-	12	-	
	Jaldhaka	Coochbehar	Mekhliganj	Uchalpukuri	-	-	80	-	14	-	
	Raidak-I	Coochbehar	Block-Tufanganj-I	Balabhat Bordar area	-	-	200	-	6	-	
	Mansai (R/B)	Coochbehar	Block and P.S : Sitai,	Baro Adabari area	-	-	60	-	14	-	
	L/B of Torsa	Coochbehar	Block-Cooch Behar-II	Tritiyakhanda Salmara area	-	-	250	-	6	-	
	Gadadhar	Coochbehar	Block-Tufanganj-I	Paschim Dhadial Ghatpar area.	-	-	210	-	27	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Jhaijhali area.	-	-	200	-	15	-	
	Jaldhaka (L/B)	Coochbehar	P.S- Goksadanga	Daribosh Fulbari area	-	-	150	-	6	-	
	Kaljani	Coochbehar	Mouza:- Chowkushi.	Deocharai area	-	-	400	-	15.5	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Amlaguri area.	-	-	150	-	7.5	-	
	Raidak-I	Coochbehar	Block-Tufanganj-I	Rajarkhuti area	-	-	400	-	7	-	
	Gadadhar	Coochbehar	Block-Tufanganj-I	Santoshpur area	-	-	45	-	6	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Dhonguri area.	-	-	200	-	6.7	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Natabari area.	-	-	250	-	9	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Bhuchungamari area.	-	-	65	-	12	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Panishala area	-	-	400	-	5	-	
	Raidak-I	Coochbehar	Block-Tufanganj-I	Barmanpara area	-	-	100	-	5	-	
	Raidak-I	Coochbehar	Block-Tufanganj-I	Dweeperpar area.	-	-	100	-	5	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Jhawkhuti area.	-	-	1260	-	25	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Char Balabhat area.	-	-	1500	-	30	-	
	Raidak-I	Coochbehar	Block-Tufanganj-I	Tariapara area.	-	-	900	-	15	-	
	Gadadhar	Coochbehar	Block-Tufanganj-I	Gaibandapara area.	-	-	210	-	10	-	
	Gadadhar	Coochbehar	Block-Tufanganj-I	Balaghata area.	-	-	300	-	8	-	
	Gadadhar	Coochbehar	Block-Tufanganj-I	Krishnapur area.	-	-	300	-	9	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Chiana area.	-	-	300	-	14	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Chiana area.	-	-	250	-	14	-	
	Kaljani	Coochbehar	Block-Tufanganj-I	Natabari area.	-	-	500	-	21	-	

Kaljani	Coochbehar	Block-Tufanganj-I	Natabari area.	-	-	150	-	7	-
Gadadhar	Coochbehar	Block-Tufanganj-I	Namopara area.	-	-	210	-	7	-
Gadadhar	Coochbehar	Tufanganj-I	Ghogarkhuti	-	-	50	-	5	-
Raidak-I	Coochbehar	Tufanganj-I	Tufanganj Municipality	-	-	150	-	14	-
Raidak-I	Coochbehar	Tufanganj-I	Dhalpal	-	-	200	-	10	-
Raidak-I	Coochbehar	Tufanganj-I	Bashraja-II	-	-	30	-	5	-
Raidak-I	Coochbehar	Block-Tufanganj-I	Guriyarpar	-	-	300	-	20	-
Raidak-II	Coochbehar	Block-Tufanganj-II	Chotolau kuthi	-	-	300	-	20	-
Raidak-I	Coochbehar	Block-Tufanganj-I	Uttar Dhalpal	-	-	200	-	12	-
Raidak-I	Coochbehar	Block-Tufanganj-I	Chkliguri	-	-	250	-	25	-
Sankosh	Coochbehar	Block-Tufanganj-I	Falimari	-	-	300	-	30	-
Mansai (R/B)	Coochbehar	Block and P.S : Sitai	Kismat Adabari area	-	-	50	-	5.65	-
Mansai (R/B)	Coochbehar	Block : Mathabhanga-I	Panaguri area	-	-	70	-	11.19	-
Mansai (R/B)	Coochbehar	Block : Mathabhanga-I	Shibpur area	-	-	30	-	5.66	-
Sutunga (R/B)	Coochbehar	Block :Mathabhanga-I	Paschim Khaterbari area	-	-	160	-	6.96	-
Dudua (R/B)	Coochbehar	P.S- Goksadanga	Melardanga area	-	-	180	-	12.5	-
Dudua (L/B)	Coochbehar	P.S- Goksadanga	Singjani area	-	-	200	-	17.98	-
Sutunga (L/B)	Coochbehar	Mathabhanga	Mathabhanga area	-	-	585	-	2.59	-
Dudua(R/B)	Coochbehar	Block- Mathabhanga-II,	Fulbari area	-	-	100	-	7.5	-
Mansai (R/B)	Coochbehar	Mansai within G.P.:	Kajlikura area	-	-	60	-	7	-
Dharala (L/B)	Coochbehar	Block : Mathabhanga I	Kodal dhowa Area	-	-	100	-	6	-
Mujnai (L/B)	Coochbehar	Block- Mathabhanga-II,	Mukuldanga Area	-	-	90	-	5	-
L/B of Mansai	Coochbehar	Block-Cooch Behar-I	Bairati Area	-	-	250	-	40	-
L/B of Mansai	Coochbehar	Block-Cooch Behar-I	Bairati Jagatjully Area	-	-	75	-	5	-
L/B of Mansai	Coochbehar	Block-Mathabhanga-II	Paradubi Area	-	-	200	-	14	-
R/B of Torsa	Coochbehar	Block-Cooch Behar-II	Ichamari-Champaguri area	-	-	90	-	7	-
L/B of Mansai	Coochbehar	Block-Mathabhanga-II	Kodal dhowa Area	-	-	150	-	15	-
L/B of Mansai	Coochbehar	Block-Mathabhanga-II	Barai area.	-	-	80	-	7.39	-
R/B of Dolong	Coochbehar	Block-Mathabhanga-II	Moteir Kuthi	-	-	150	-	8.75	-
Kaljani	Coochbehar	Mouza:- Kholta G.P. :-	Kholtta,Marichbari AREA	-	-	200	-	7	-
Kaljani	Coochbehar	Mouza:- Ambari ,G.P. :-	Ambari G.P area	-	-	200	-	6.5	-
Kaljani	Coochbehar	Mouza:- Amlaguri. G.P.	Amlaguri. G.P. area	-	-	150	-	7.4	-
Kaljani	Coochbehar	Mouza:- Salmara. G.P.	Salmara. G.P.area	-	-	100	-	5.5	-
Kaljani	Coochbehar	Mouza:- Balarampur-I .	Balarampur-I . G.P area.	-	-	100	-	6.75	-
Kaljani	Coochbehar	Mouza:- Balarampur-I .	Balarampur-I . G.P area.	-	-	65	-	6.8	-
Baniadaha	Coochbehar	Mouza:- Baniadaha.	Baniadaha. G.P.area.	-	-	200	-	4.25	-
Baniadaha	Coochbehar	G.P-Gobrachara	Baniadaha.G.P area.	-	-	100	-	4.75	-
Torsa	Coochbehar	Mouza:- Ghargharia	Ghargharia dwitiya khanda.area.	-	-	80	-	13	-

Torsa	Coochbehar	Mouza:- Guriahati. G.P.	Guriahati.	-	-	100	-	13	-	
Ghargharia	Coochbehar	Mouza:- Maruganj .	Maruganj P.S. area.	-	-	130	-	7.2	-	
Ghargharia	Coochbehar	Mouza:- Maruganj .	Maruganj P.S. area.	-	-	150	-	7	-	
Ghargharia	Coochbehar	Mouza:- Maruganj .	Paniachara area.	-	-	180	-	9	-	
Ghargharia	Coochbehar	Mouza:- Maruganj .	East Panisalaarea.	-	-	190	-	7	-	
Kaljani	Coochbehar	Mouza:- Kholta G.P. :-	Kholta G.P. area.	-	-	100	-	7.5	-	
3	Mahananda	Jalpaiguri	Rajganj	Majhua area	-	-	170	-	7	-
	Mahananda	Jalpaiguri	Rajganj	Vivekananda Colony	-	-	120	-	7	-
	Mahananda	Jalpaiguri	Rajganj	Bhupendranagar	-	-	105	-	6	-
	Mahananda	Jalpaiguri	Rajganj	Samar Nagar	-	-	90	-	5	-
	Singhijhora	Jalpaiguri	Rajganj	Taribari area	-	-	115	-	10	-
	Sahu	Jalpaiguri	Rajganj	Phapri area	-	-	110	-	5	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Saradapally, kdobari	-	-	80	-	20	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Saradapally, kdobari	-	-	55	-	10	-
	Teesta	Jalpaiguri	Rajganj	Dhakishin Milanpally.	-	-	185	-	30	-
	Teesta	Jalpaiguri	Rajganj	Beren Basti	-	-	80	-	20	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Teesta Segregeting embankment	-	-	80	-	20	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Jalpaiguri Town Protective	-	-	55	-	10	-
	Karala	Jalpaiguri	Jalpaiguri (Sadar)	Dinbazar to Subhash Setu	-	-	55	-	10	-
	Karala	Jalpaiguri	Jalpaiguri (Sadar)	D/S portion of Maskalaibari Bridge	-	-	60	-	15	-
	Dhardhara	Jalpaiguri	Jalpaiguri (Sadar)	Back side of Sadar Hospital	-	-	30	-	5	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Spur No.-2 of of MB	-	-	55	-	10	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Spur No.-1 of of MB	-	-	55	-	10	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Spur No.-5 of of MB	-	-	55	-	10	-
	Teesta	Jalpaiguri	Jalpaiguri (Sadar)	Deflecter of Kadobar- Mondalghat	-	-	60	-	15	-
	Jaldhaka	Jalpaiguri	Dhupguri	In between Spur 3A to Spur no 7	-	-	110	-	25	-
	Gheesh	Jalpaiguri	Mal	Gheesh embankment inbetween	-	-	65	-	18	-
	Chel	Jalpaiguri	Mal	Manabri Embankment,	-	-	80	-	15	-
	Leesh	Jalpaiguri	Mal	Dobabasty embankment,	-	-	60	-	15	-
	Teesta	Jalpaiguri	Rajganj	Chumukdanga area,spur no-	-	-	30	-	5	-
	kumlai	Jalpaiguri	Mal	Hai hai pather , GP- Tesimla	-	-	30	-	5	-
	Mal	Jalpaiguri	Mal	Mal T.P Embankment Mal	-	-	45	-	9	-
	Neora	Jalpaiguri	Mal	1064,GP- kumlai,Boguladhura pry.	-	-	55	-	10	-
	Teesta	Jalpaiguri	Mal	Chengmari Embankment- Spur	-	-	290	-	50	-
	Khunnai	Jalpaiguri	Mal	Khulnai Camp	-	-	55	-	10	-
	Dharala	Jalpaiguri	Mal	Uttar Matiali	-	-	45	-	8	-
	Teesta	Jalpaiguri	Mal	Spur No-5 of basusuba and Spur	-	-	80	-	20	-
	Jaldhaka	Jalpaiguri	Nagrakata	Bamandanga Marginal [Spur No -	-	-	250	-	40	-

Diana	Jalpaiguri	Nagrakata	Kherkata Embankment	-	-	60	-	15	-	
Diana	Jalpaiguri	Nagrakata	Majhiali Embankment	-	-	55	-	10	-	
Dudua	Jalpaiguri	Dhupguri	South,North Sonakhali,Purba	-	-	185	-	30	-	
Gilandi	Jalpaiguri	Dhupguri	Paschim salbari,Magurmari	-	-	60	-	15	-	
Diana	Jalpaiguri	Nagrakata	Changmari Embankment and	-	-	60	-	15	-	
Rethi – Sukriti	Jalpaiguri	Dhupguri	Rethi – Sukriti embankment near	-	-	90	-	20	-	
Angrabhasa	Jalpaiguri	Dhupguri	Angrabhasa	-	-	45	-	8	-	
Jadhaka	Jalpaiguri	Dhupguri	Dambari, Khayer bari Embankment	-	-	75	-	20	-	
Jaldhaka	Jalpaiguri	Maynaguri	Sutuga, Dharaikuri Embankment	-	-	120	-	25	-	
Jaldhaka	Jalpaiguri	Maynaguri	Spur No 1 of Ramsai	-	-	70	-	17	-	
Jarda	Jalpaiguri	Maynaguri	Maynaguri T.P	-	-	70	-	18	-	
Teesta	Jalpaiguri	Maynaguri	Basusubha, Bakali, Burnish	-	-	260	-	45	-	
4	Mahananda	Darjeeling	Matigara	Nagradoba	-	-	240	-	8	-
	Panchanoi	Darjeeling	Matigara	Dagapur area	-	-	265	-	20	-
	Panchanoi	Darjeeling	Matigara	Salbari Machua Busty	-	-	175	-	5	-
	Panchanoi	Darjeeling	SMC	Pati Colony, Kuet Colony	-	-	210	-	6	-
	Panchanoi	Darjeeling	Matigara	Binoykrishna Pally	-	-	155	-	6	-
	Champasari Jhora	Darjeeling	Matigara	Middle Palash	-	-	225	-	6	-
	Mechi Jhora	Darjeeling	Matigara	Uttar Palash	-	-	105	-	8	-
	Manjha	Darjeeling	Naxalbari	Belgachi	-	-	175	-	8	-
	Chenga	Darjeeling	Naxalbari	Thukru Busty	-	-	185	-	10	-
	Chenga	Darjeeling	Naxalbari	Mahasinghjote	-	-	195	-	6	-
	Balason	Darjeeling	Naxalbari	Nayabusty	-	-	215	-	5	-
	Balason	Darjeeling	Matigara	New Rangia	-	-	245	-	6	-
	Balason	Darjeeling	Matigara	Sisabari	-	-	265	-	7	-
	Balason	Darjeeling	Matigara	Jyotinagar Colony	-	-	195	-	5	-
	Rakti	Darjeeling	Matigara	D/s of Khaprail Bridge	-	-	255	-	9	-
	Rakti	Darjeeling	Matigara	Fulbari Mouza	-	-	175	-	5	-
	Rakti	Darjeeling	Matigara	Putin Bari	-	-	185	-	5	-
	Rakti	Darjeeling	Matigara	Paskelguri	-	-	180	-	7	-
	Rohini	Darjeeling	Matigara	U/s of Khaprail Bridge	-	-	165	-	6	-
	Hulia	Darjeeling	Naxalbari	D/s of PWD Bridge	-	-	135	-	4	-
	Manjha	Darjeeling	Phansidewa	Kuchia Jote	-	-	165	-	5	-
	Chenga	Darjeeling	Phansidewa	Harivita	-	-	155	-	6	-
	Thuna	Darjeeling	Phansidewa	Bhojnarayan Nich Line	-	-	175	-	10	-
	Taipu	Darjeeling	Phansidewa	Taipu area	-	-	285	-	5	-
	Chenga	Darjeeling	Phansidewa	Gourikachari	-	-	135	-	5	-
	Buri Balason	Darjeeling	Phansidewa	Choudhuria Gachh	-	-	175	-	6	-

	Mahananda	Darjeeling	Phansidewa	Budaru Gaon	-	-	215	-	7	-		
	Mahananda	Darjeeling	Phansidewa	Murikhoa	-	-	205	-	29	-		
	Khemchi	Darjeeling	Kharibari	Dangarvita	-	-	175	-	8.5	-		
	Chapati	Darjeeling	Kharibari	Bhattacharjee	-	-	165	-	8.5	-		
	Dudhlong	Darjeeling	Kharibari	Ambaline	-	-	185	-	9	-		
	Boon	Darjeeling	Kharibari	Keshordoba	-	-	155	-	9.5	-		
	Mechi	Darjeeling	Kharibari	Dulajote	-	-	190	-	9.5	-		
5	Tangon	Uttar Dinajpur	Kaliyaganj	Bokduar, Bokduarchapoor, Uttar	-	2850	-	-	43	-	Email from SE-NIC-I, Dated 25.02.2021	
	Tulsi	Uttar Dinajpur	Kaliyaganj	On kahil Embankment and sluice	-	600	-	1	2	-		
	Bina	Uttar Dinajpur	Kaliyaganj	On Malgao Embankment and	-	1000	-	1	1.5	-		
	Chiramati	Uttar Dinajpur	Kaliyaganj	On Madhupur Embankment and	-	400	-	1	1.7	-		
	Dolancha	Uttar Dinajpur	Islampur	Kalikapur, near Dolancha Bridge	-	1200	-	1	70	-		
	Ratua	Uttar Dinajpur	Islampur	On Rabivitta Sluice at Rabivitta	-	2.5	-	1	1.2	-		
	Dauk	Uttar Dinajpur	Chopra	On Rabindranagar Colony	-	60	-	-	4.6	-		
	Mahananda	Uttar Dinajpur	Chopra	On Bilaitibari Sluice at Bilaitibari	-	2.3	-	1	3.5	-		
	Kulik	Uttar Dinajpur	Raiganj	Abdulghata,Kharmujaghhat,Kancha	-	6000	-	5	30	-		
	Mahananda,Sui,Ga	Uttar Dinajpur	Itahar	Gorahar, Chayanpur, Bajitpur,	1	11600	-	7	98	-		
	Nagar	Uttar Dinajpur	Karandighi	Dhauta(Rasakhowa-II	-	800	-	-	180	-		
112	6	Tangon	Dakshin Dinajpur	Kushmundi	Korapara, Nayapara, Kaksha,	-	177.25	-	-	6.7	-	Email from SE-NIC-I, Dated 25.02.2021
	Tangon	Dakshin Dinajpur	Banshihari	Palpara, Murgamari, Kanurghat,	-	120	-	-	5.5	-		
	Punarbhaba	Dakshin Dinajpur	Block+PS-	Jahangirpur G.P. -	-	584.5	-	-	47.45	-		
	Atrai	Dakshin Dinajpur	Kumarganj, Kumarganj	Mohana G.P (Vill-Beltara-	-	124	-	-	7	-		
	Atrai	Dakshin Dinajpur	Balurghat,	Ckakvrigu G.P (Vill- chakvrigu	30	160	40	15	58	-		
	Jamuna	Dakshin Dinajpur	Hili, Hili	Hili G.P (Vill- Basudeb pur), 3 no	-	45	-	-	5	-		
7	Fulahar	Malda	Ratua-II/Ratua	Kahala, Debipur/ Surjapur,Debipur	-	930	-	-	900	-		
	Fulahar	Malda	Ratua-II/Ratua	Bilaimari/ Nakkati, Gangaramtala,	-	1700	-	-	600	-		
	Fulahar	Malda	Malda/Ratua-II/Ratua	Mahanandatala/ Bankutala,	-	1000	-	-	400	-		
	Fulahar	Malda	Harishchandrapur-II/	Doulatnagar/ Khidirpur,	-	1135	-	-	990	-		
	Mahananda	Malda	Ratua-II/Pukhuria	Maharajpur/ Maharajpur, Rajapur,	-	1300	-	-	370	-		
	Mahananda	Malda	Ratua-II/Pukhuria	Sripur-II/Chator	-	500	-	-	310	-		
	Mahananda	Malda	Ratua-II/Pukhuria	Sripur-II/ Sripur	-	200	-	-	95	-		
	Mahananda	Malda	Chanchal-II/Chanchal	Mahanandopur/ Jagannathpur	-	200	-	-	60	-		
	Mahananda	Malda	Chanchal-II/Chanchal	Chandrapara/ Jadupur,	-	1025	-	-	460	-		
	Mara Mahananda	Malda	Ratua-II/Pukhuria	Maharajpur/ Kutubganj	-	350	-	-	50	-		
	Kalindri	Malda	Manikchak/ Manikchak	Chowkimirdadpur	-	190	-	-	112	18.50		
	Fulhar (L/B)	Malda	Manikchak/ Manikchak	Mathurapur(G.P) and Nazirpur	-	4000	-	-	10	-		
	Ganga(L/B)	Malda	Manikchak/ Bhutni	Hiranandapur G.P- Bagedantola,	-	4530	-	-	350	-		
	Ganga(L/B)	Malda	Kaliachak-II/ Mothabari	Bangitola(G.P)-Balukhara,	-	150	-	-	20	-		

	Ganga(L/B)	Malda	Kaliachak-III/	Sovapur Pardewnapur(G.P)-	-	2070	-	-	90	-	Email
	Mahananda	Malda	English Bazar/ English	English bazar Municipalty:-	-	120	-	11	39	-	
	Tangon	Malda	Gazole	Chaknagar G.P-Kadubari,	-	130	-	-	45	-	
	Brahamoni	Malda	Bamongola/ Bamongola	Madhabati G.P- Nalagola	-	130	-	-	3	-	
	Srimati &	Malda	Gazole	Korkoch G.P- Masaldighi	-	170	-	2	40	-	
	Punarbhava	Malda	Gazole/ Bamongola	Madhabati G.P- Sukdevpur	-	120	-	-	78	-	
8	Dwarka	Birbhum	P.S- Rampurhat,	G.P- Barshal,	-	230	-	-	100	-	
	Dwarka	Birbhum	P.S- Rampurhat,	G.P- Barshal,	-	245	-	-	110	-	
	Brahmani	Birbhum	P.S- Nalhati,	G.P- Barla,	-	50	-	-	5	-	
	Brahmani	Birbhum	P.S- Margram,	G.P- Dunigram,	-	40	-	-	4.5	-	
	Brahmani	Birbhum	P.S- Margram,	G.P- Dunigram,	-	40	-	-	5	-	
	Brahmani	Birbhum	P.S- Margram,	G.P- Dunigram,	-	35	-	-	4.8	-	
	Pagla	Birbhum	Murarai-II/Paikar	G.P.- Amdol	-	450	-	-	100	-	
9	Damodar	Purba Bardhaman	Khandaghosh /	GP- Lodna, Beldanga	-	1400	-	-	566	-	Memo. No. 273, Dated: 31/03/2021 of
	Damodar	Purba Bardhaman	Khandaghosh /	GP- Lodna, Beldanga	-	1000	-	-	400	-	
	Damodar	Purba Bardhaman	Khandaghosh /	GP- Sasanga, Napara	-	1500	-	-	758	-	
	Damodar	Purba Bardhaman	Jamalpur /Jamalpur	GP- Berugram, Kanakpur	-	275	-	-	192	-	
	Damodar	Purba Bardhaman	Jamalpur /Jamalpur	GP- Jotsriram, Rajarampur	-	900	-	-	356	-	
	Damodar	Purba Bardhaman	Jamalpur /Jamalpur	GP- Jamalpur, Kalera	-	950	-	-	275	-	
	Damodar	Purba Bardhaman	Raina-II / Madhabdihi	GP- Uchalan, Maniary	-	650	-	-	168	-	
	Damodar	Purba Bardhaman	Galsi-II / Galsi	GP- Belkash and Konarpur,	-	750	250	-	227	-	
	Damodar	Purba Bardhaman	Khandaghosh /	GP- Gaitanpur/ Gaitanpur	-	850	750	-	215	-	
	Damodar	Purba Bardhaman	Jamalpur / Jamalpur	GP- Panchra, Dadpur	-	550	550	-	205	-	
	Banka	Purba Bardhaman	Galsi / Galsi	Bhuri / Jahapur	-	-	115	-	15	-	
	Banka	Purba Bardhaman	Memari-II / Memari	Bohari-I / Rukashpur, Mohispur,	-	-	450	-	45	-	
	Damodar	Purba Bardhaman	Purba Bardhaman	Barsul-II / Kalinagar, Jabrabad /	-	-	75	-	24	-	
	Banka	Purba Bardhaman	Monteswar / Monteswar	Ganguria / Madhyamgram G.P.	-	750	750	-	250	-	
	Banka	Purba Bardhaman	Monteswar / Monteswar	Basatpur / Madhyamgram GP	-	700	500	-	230	-	
	Banka	Purba Bardhaman	Monteswar / Monteswar	Samaspur / Madhyamgram	-	800	800	-	270	-	
	Bhagirathi	Purba Bardhaman	Katwa-II / Katwa	Kabirajpur	-	-	-	-	110	-	
	Bhagirathi	Purba Bardhaman	Katwa-II / Katwa	Agradwip	-	-	-	-	217	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Jhaudanga	-	-	-	-	224	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Dampal	-	-	-	-	47	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Chatni	-	-	-	-	132	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Nowapara	-	-	-	-	85	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Tamaghata	-	-	-	-	219	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Kamalnagar	-	-	-	-	161	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Kuthuria	-	-	-	-	148	-	

	Bhagirathi	Purba Bardhaman	Purbasthali-II /	Kasthasali	-	-	-	-	110	-	Meng
	Bhagirathi	Purba Bardhaman	Purbasthali-I /	Jaluidanga	-	-	-	-	264	-	
	Bhagirathi	Purba Bardhaman	Purbasthali-I /	Nasaratpur	-	-	-	-	300	-	
	Bhagirathi	Purba Bardhaman	Kalna-I / Kalna	Kalinagar	-	-	-	-	93	-	
	Bhagirathi	Purba Bardhaman	Kalna-I / Kalna	Piyarinagar	-	-	-	-	121	-	
	Bhagirathi	Purba Bardhaman	Katwa-II / Katwa	GP- Agradwip/ Sahapur,	-	900	-	-	92.5	-	
	Khari	Purba Bardhaman	Galsi-II and Aushgram-I	GP- Khano/ Sankri	-	300	-	-	30	-	
	Khari	Purba Bardhaman	Burdwan-I / Dewandighi	GP Baghar-I / Gopalpur / Gopalpur	-	200	-	-	20	-	
	Khari	Purba Bardhaman	Burdwan-I / Dewandighi	GP Baghar-I / Panchula /	-	200	-	-	20	-	
	Khari	Purba Bardhaman	Bhatar/ Bhatar	GP Mahachanda / Parhat / Parhat	-	600	-	-	60.5	-	
	Khari	Purba Bardhaman	Bhatar/ Bhatar	GP Mahachanda / Parhat / Parhat	-	400	-	-	40	-	
	Khari	Purba Bardhaman	Bhatar/ Bhatar	GP Mahachanda /Jhikardanga/	-	200	-	-	20	-	
	Khari	Purba Bardhaman	Bhatar/ Bhatar	GP Mahachanda /Nabasta/	-	250	-	-	25	-	
	Khari	Purba Bardhaman	Bhatar/ Bhatar	GP Mahachanda / Bamunnara/	-	300	-	-	30	-	
	Khari	Purba Bardhaman	Ausgram-II /Ausgram	GP Eral / Kalabandha/ Eral	-	100	-	-	10.5	-	
10	Ganga	Murshidabad	Farakka/ Farakka	Porapara and	-	1000	-	-	1700	-	
	Ganga	Murshidabad		Mahespur	-	-	500	-	650	-	
	Ganga	Murshidabad	Dhuliyan Municipality/ Samserganj	Kagdipara	-	-	200	-	650	-	
	Ganga	Murshidabad		Kagdipara	-	-	500	-	600	-	
	Ganga	Murshidabad		Mahaldapara	-	-	700	-	1500	-	
	Ganga	Murshidabad		Ghoshpara	-	-	200	-	300	-	
	Ganga	Murshidabad		Kabristan	-	-	800	-	1200	-	
	Ganga	Murshidabad		Pump House	-	800	-	-	700	-	
	Ganga	Murshidabad	Samserganj/	Pratapganj, Sikdarpara, Loharpur,	-	3000	-	-	4000	-	
	Ganga	Murshidabad		Kamalpur, Durgapur	-	-	800	-	1200	-	
	Ganga	Murshidabad	Suti-I/Suti	Nurpur	-	500	-	-	500	-	
	Ganga	Murshidabad	Suti-II/Suti	Aurangabad	-	-	1000	-	1000	-	
	Padma	Murshidabad	Lalgola/Lalgola	Kantakhali	-	600	-	-	900	-	
	Padma	Murshidabad	Murshidabad/	Renu BOP	-	1830	-	-	1000	-	
	Bagmari	Murshidabad	Farakka/Farakka	Ankura	-	500	-	-	250	-	
	Gumani	Murshidabad	Farakka/Farakka	Santalpara	-	700	-	-	400	-	
	Falgu	Murshidabad	Suti-I/Suti	Aajagarpara	-	500	-	-	400	-	
	Bansloi	Murshidabad	Suti-I/Suti	Aajagarpara	-	1000	-	-	600	-	
	Pagla	Murshidabad	Suti-I/Suti	Gambhira	-	500	-	-	300	-	
	Mayurakshi	Murshidabad	Burwan/ Burwan	Panchthupi/ Panchthupi	-	15	-	-	1.5	-	
	Mayurakshi	Murshidabad		Panchthupi / Belgram /Belgram	-	15	-	-	1.5	-	
	Mayurakshi	Murshidabad		Saura / Modda / Modda	-	35	-	-	3.5	-	
	Mayurakshi	Murshidabad		Kunarnurrun/ Suili/ Rajhat	-	20	-	-	2	-	

Mayurakshi	Murshidabad		Kunarnurrun/ Chaitpur/ Chaitpur	-	20	-	-	-	2	-
Mayurakshi	Murshidabad		Sundarpur/ Hantisala/ Hantisala	-	30	-	-	-	3	-
Mayurakshi	Murshidabad		Sundarpur/ Sundarpur/ Sundarpur	-	35	-	-	-	3.5	-
Mayurakshi	Murshidabad		Sundarpur/ Maliandi/ Maliandi	-	40	-	-	-	4	-
Mayurakshi	Murshidabad		Jajan /Harischandrapur	-	40	-	-	-	4	-
Mayurakshi	Murshidabad		Godda/ Kashipur/ Kashipur	-	50	-	-	-	5	-
Mayurakshi	Murshidabad		Jajan /Jadavpur /Jadavpur	-	40	-	-	-	4	-
Mayurakshi	Murshidabad		Alugram /Mondalpur /Mondalpur	-	50	-	-	-	5	-
Mayurakshi	Murshidabad		Godda /Chandpur /Chak Chandpur	-	50	-	-	-	5	-
Dwarka	Murshidabad		Rasulpur / Jhulanpur/ Jhulanpur	-	70	-	-	-	30	-
Dwarka	Murshidabad		Rasulpur / Lakshmanpur/	-	50	-	-	-	15	-
Dwarka	Murshidabad		Rasulpur / Sankarghat / Rasulpur	-	225	-	1	30	-	-
Dwarka	Murshidabad		Rasulpur / Radhanagar/	-	120	-	-	-	35	-
Dwarka	Murshidabad	Kandi / Kandi	Gokorno, Rameswarpur/	-	150	-	-	-	40	-
Dwarka	Murshidabad	Kandi / Kandi	Gokorno-I/ Gosaidob / Gosaidob,	-	250	-	-	-	50	-
Brahmani	Murshidabad	Nabagram / Nabagram	Rasulpur/ Ratanpur/ Rasulpur	-	250	-	-	-	80	-
Brahmani	Murshidabad	Nabagram / Nabagram	Rasulpur/ Kochubari/ Rasulpur	-	150	-	-	-	50	-
Bhairab	Murshidabad	Hariharpara /	Dharampur / Tartipur /Tartipur	-	700	-	-	-	160	-
Bhairab	Murshidabad	Berhampore /	Madanpur / Nidhinagar /	-	500	-	-	-	120	-
Bhairab	Murshidabad	Jalangi	Ghoshpara/ Ghoshpara /	-	-	-	1	10	-	-
Bhairab	Murshidabad	Hariharpara/	Malopara/ Padmanavpur/	-	400	-	-	-	90	-
Bhairab	Murshidabad	Hariharpara	Malopara/ Ghoshpara and	-	400	-	-	-	90	-
Babla	Murshidabad	Berhampore/	Satui Chowrigacha/Habulergher,	-	120	-	-	-	50	-
Babla	Murshidabad	Beldanga-II/Shaktipur	Beleghati/Shaktipur	-	300	-	-	-	180	-
Jalangi	Murshidabad		Nowda/ Nowda	Madhupur/ Tokia/ Madhupur	-	350	-	-	86	-
Jalangi	Murshidabad		Madhupur/Kishoritala/ Madhupur	-	500	-	-	-	160	-
Jalangi	Murshidabad		Madhupur/Dangapara/ Madhupur	-	200	-	-	-	60	-
Jalangi	Murshidabad		Nowda/Amtala,Fazilnagar/	-	200	-	-	-	60	-
Jalangi	Murshidabad		Nowda/Jagaipur Ashram/ Egratpur	-	200	-	-	-	60	-
Jalangi	Murshidabad		Chandpur/ Goghata/ Chandpur	-	600	-	-	-	180	-
Jalangi	Murshidabad		Chandpur/ Jaulushpur/ Tungi	-	250	-	-	-	60	-
Suti	Murshidabad		Nowda/ Nowda	Bali-1/ Sannyashidanga/ Tungi	-	200	-	-	50	-
Suti	Murshidabad		Bali-2/Harikana/ Bali	-	100	-	-	-	25	-
Suti	Murshidabad		Bali-2/Damdamal/	-	250	-	-	-	60	-
Suti	Murshidabad		Bali-2/ Chatumara/ Bali	-	250	-	-	-	60	-
Suti	Murshidabad		Bali-2/ Kodalkanti/ Bali	-	250	-	-	-	60	-
Bhandardaha Beel	Murshidabad	Nowda/ Nowda	Kedarchandpur-1/ Ghoramara /	-	250	-	-	-	40	-
Utrasan	Murshidabad	Beldanga-II/Shaktipur	Nagar paschimpara/Kamnagar	-	300	-	-	-	150	-

Bhagirathi	Murshidabad	Berhampore/ Berhampore	Hot Nagar/ sattui	-	400	-	-	-	150	-
Bhagirathi	Murshidabad		Chourigacha / Sattui Chourigacha	-	150	-	-	-	50	-
Bhagirathi	Murshidabad		Halsanapara /Sattui Chourigacha	-	150	-	-	-	50	-
Bhagirathi	Murshidabad		Kalabaria /Haridasmati	-	500	-	-	-	130	-
Bhagirathi	Murshidabad		Basabari/ Sattui Chourigacha	-	100	-	-	-	40	-
Bhagirathi	Murshidabad	Jiaganj/Jiaganj	Tikiapara/ Tikiapara	-	100	-	-	-	40	-
Bhagirathi	Murshidabad		Bahadurpur/ Bahadurpur	-	200	-	-	-	80	-
Bhagirathi	Murshidabad		Baranagar/Jiaganj Ajimganj	-	200	-	-	-	80	-
Bhagirathi	Murshidabad		Ajimganj Mathor para/Jiaganj	-	130	-	-	-	40	-
Bhagirathi	Murshidabad		Dahapara/ Mukundabag	-	300	-	-	-	120	-
Bhagirathi	Murshidabad		Jiaganj Bhattacharya /Jiaganj	-	130	-	-	-	40	-
Bhagirathi	Murshidabad		Sundarpur G.P/Basantapur	-	300	-	-	-	120	-
Bhagirathi	Murshidabad	Lalgola/Lalgola	Nashipur G.P/khamarpura	-	200	-	-	-	80	-
Bhagirathi	Murshidabad		Siteshnagar/Dewansora g.P	-	300	-	-	-	120	-
Bhagirathi	Murshidabad		Ujjalnagar Ferryghat/Nashipur G.P	-	40	-	-	-	20	-
Bhagirathi	Murshidabad		Ramnagar-Dopukur /Ramnagar-	-	500	-	-	-	251	-
Bhagirathi	Murshidabad	Beldanga-II/Shaktipur	Prosadpur	-	400	-	-	-	287	-
Ganga / Padma	Murshidabad		Hanumantanagar/Mathpara/Hanu	-	260	-	-	-	57.2	-
Ganga / Padma	Murshidabad	Bhagwangola-I and II / Bhagwangola	Hanumantanagar/Char	-	255	-	-	-	56.1	-
Ganga / Padma	Murshidabad		Hanumantanagar/BOP-	-	290	-	-	-	63.8	-
Ganga / Padma	Murshidabad		Hanumantanagar/Laharamari/Daks	-	560	-	-	-	123.2	-
Ganga / Padma	Murshidabad		Hanumantanagar/Babupur/Hanum	-	295	-	-	-	64.9	-
Ganga / Padma	Murshidabad		Akhriganj/Char	-	280	-	-	-	61.6	-
Ganga / Padma	Murshidabad		Akhriganj/Saitanpara/Akhriganj	-	285	-	-	-	62.7	-
Ganga / Padma	Murshidabad		Akhriganj/Mahismara/Akhriganj	-	325	-	-	-	72.5	-
Ganga / Padma	Murshidabad		Hanumantanagar/BOP-	-	66	-	-	-	14.52	-
Ganga / Padma	Murshidabad	Raninagar-II /Raninagar	Rajapur/Char Rajanagar/Char	-	250	-	-	-	55	-
Ganga / Padma	Murshidabad		Malibari-I/Border Para-	-	200	-	-	-	44	-
Ganga / Padma	Murshidabad		Rajapur/Ramchandrapur/Ramchan	-	200	-	-	-	44	-
Ganga / Padma	Murshidabad	Jalangi/ Jalangi	Jalangi/Joykrishnapur/Jalangi	-	72	-	-	-	15.84	-
Ganga / Padma	Murshidabad		Sagarpara/Sagarpara/Sagarpara	-	250	-	-	-	55	-
Ganga / Padma	Murshidabad		Sagarpara/Jamalpur/Sagarpara	-	235	-	-	-	51.7	-
Ganga / Padma	Murshidabad		Sahebagar/Kakmari/Char Kakmari	-	265	-	-	-	58.3	-
Ganga / Padma	Murshidabad		Sagarpara/Singhapara/Sagarpara	-	220	-	-	-	48.4	-
Ganga / Padma	Murshidabad		Ghoshpara/Udaynagar/Muradpur	-	30	-	-	-	6.6	-
Ganga / Padma	Murshidabad		Jalangi/Muradpur/Muradpur	-	15	-	-	-	3.3	-
Ganga / Padma	Murshidabad		Sagarpara/Suryanagar/	-	19	-	-	-	4.18	-
Ganga / Padma	Murshidabad		Taltali/Farazipara/Farazipara	-	16	-	-	-	3.52	-

	Ganga / Padma	Murshidabad		Ghoshpara/Ghoshpara/Muradpur	-	15	-	-	3.3	-	
	Ganga / Padma	Murshidabad		Goshpara/Dakshin	-	16	-	-	3.52	-	
	Ganga / Padma	Murshidabad		Muradpur/Ferry Ghat/Muradpur	-	19	-	-	4.18	-	
	Ganga / Padma	Murshidabad		Jalangi/Jalangi/Jalangi	-	14	-	-	3.08	-	
	Ganga / Padma	Murshidabad		Sagarpara/Khasmahal/Khasmahal	-	237	-	-	52.14	-	
	Ganga / Padma	Murshidabad		Sagarpara/Singhapara/Singhapara	-	103	-	-	22.66	-	
11	Bhagirathi	Nadia	Nakhsipara/ Nakhsipara	D/s of Noapara ferry ghat Village-	-	30	-	-	4.988	-	Memo. No. 198/1, Dated: 22/02/2021 of SE- NIC-II
	Bhagirathi	Nadia		Near Dadhupur ferry ghat Village-	-	55	-	-	7.977	-	
	Bhagirathi	Nadia		Vebodanga Ghat near Shib	-	40	-	-	4.986	-	
	Bhagirathi	Nadia		Kamal nagar ferry ghat Mouza-	-	45	-	-	4.974	-	
	Bhagirathi	Nadia	Nabadwip/ Nabadwip	village Natunpara, G.P. - Mahisura	-	44	-	-	4.992	-	
	Bhagirathi	Nadia		Village- Mahisyapara, G.P-	-	46	-	-	4.918	-	
	Bhagirathi	Nadia	Shantipur/ Shantipur	D/S Bholadanga G.P.: Gayespur	-	34	-	-	5.546	-	
	Bhagirathi	Nadia		Gober char infront of club under	-	42	-	-	4.946	-	
	Bhagirathi	Nadia		Chowdhurypara G.P.: Haripur	-	60	-	-	9.903	-	
	Bhagirathi	Nadia		SriRampur G.P.: Gayespur	-	59	-	-	6.91	-	
	Bhagirathi	Nadia		D/S of Mandir Mathpara, G.P.-	-	40	-	-	4.918	-	
	Bhagirathi	Nadia		Bholadanga, G.P.: Gayespur	-	75	-	-	4.977	-	
	Bhagirathi	Nadia		Char Haripur, G.P.: Horipur	-	40	-	-	4.991	-	
	Bhagirathi	Nadia		Mathpara,G.P.- Belghoria-II,	-	40	-	-	4.988	-	
	Bhagirathi	Nadia	Chakdaha / Chakdaha	Mukundanagar, G.P. - Chanduria-I,	-	-	50	-	4.852	-	
	Bhagirathi	Nadia		Poradanga	-	-	50	-	4.843	-	
	Bhagirathi	Nadia	Kalyani/ Chakdaha	Sarati	-	60	-	-	4.834	-	
12	Darakeswar	Bankura	Indus / Indus	Moongalpur and Kunjapur, GP-	-	1750	-	-	370	-	Memo. 564, Dtd:
	Darakeswar	Bankura	Indus / Indus	Betanal, GP- Mongalpur	-	1170	-	-	300	-	
	Darakeswar	Bankura	Indus / Indus	Bamnia and Nagatentul, GP-	-	1665	-	-	350	-	
	Darakeswar	Bankura	Patrasayer / Patrasayer	Nandur and Akhrasal, GP- Jamkuri	-	1515	-	-	340	-	
	Damodar	Bankura	Sonamukhi / Sonamukhi	Kenety and Nityanandapur, GP-	-	990	-	-	340	-	
13	Hooghly	Howrah	Uluberia Municipality	Ward No. -10, near Sundarimahal	-	10	-	-	5	-	
	Hooghly	Howrah	Sankrail	Goalberia under Raghudevbati	-	90	-	-	22.5	-	
	Hooghly	Howrah	Sankrail	Jamadar Para under Hirapur G.P.	-	25	-	-	3	-	
	Hooghly	Howrah	Sankrail	Manikpur under Manikpur G.P.	-	400	-	-	3	-	
	Hooghly and	Howrah	Sankrail	Purbapara, near Ali Tarafdar's	-	110	-	-	16.5	-	
	Hooghly	Howrah	Howrah Municipal	Ward No. -45 at Nazirgaunge	-	25	-	-	1.5	-	
	Branch Channel -	Howrah	Howrah Municipal	Ward No.-50 near Biradingi	-	800	-	-	12	-	
	Branch Channel -	Howrah	Howrah Municipal	Ward No.-50 at Biradingi	-	-	-	18	3.06	-	
	Damodar	Howrah	Udaynarayanpur	Ghola Mondalpara in Damodar	-	17	-	-	3.4	-	
	Damodar	Howrah	Udaynarayanpur	Ghola RLI in Damodar right dwarf	-	50	-	-	4	-	

	Damodar	Howrah	Udaynarayanpur	Joynagar Pollepara in Damodar	-	30	-	-	1.5	-	
	Hooghly	Howrah	Uluberia-I	Dwaripara over Hooghly right	-	-	-	2	2	-	
	Kana Damodar	Howrah	Jagatballavpur	Machal cross regulator gate at	-	-	-	1	4	-	
	Rupnarayan	Howrah	Shyampur - II,	DM Ghat-II, Antilapara	-	60	-	-	6	-	
	Nakole Khal	Howrah	Shyampur - II,	Nakole, Near Nakole Swasan	-	100	-	-	10	-	
	Lahiripara Khal	Howrah	Shyampur - II,	D. M. Ghat-II, Anantapur 2 vent	-	-	600	-	3	-	
	Over lahiripara khal	Howrah	Shyampur - II,	DM Ghat-II, Nauripara	-	-	-	1	6.25	-	
	Over Lahiripara	Howrah	Shyampur - II,	DM Ghat-II/Wooden bridge at	-	-	-	1	3.25	-	
	Nakole Khal	Howrah	Shyampur - II,	Nakole, Samantapara in Nakole	-	30	-	-	3	-	
	Hooghly	Howrah	Shyampur - I, Shyampur	Baneswarpur-I, Amarpur RLI	-	560	-	-	168	-	
	Chapa Khal	Howrah	Uluberia-I, Uluberia	Bahira, Mirpara RCC Bridge and	-	80	-	-	8	-	
	Hooghly	Howrah	Shyampur - I, Shyampur	Belari, Kumarkhali to Joynagar	-	58	-	-	5.8	-	
	Chandipur Khal	Howrah	Shyampur - I, Shyampur	Belari, Baun Para	-	-	80	-	2	-	
	Left bank of	Howrah	Shyampur - I, Shyampur	Belari, Jelepara to Belberia	-	140	-	-	3.5	-	
	Manicktala Khal	Howrah	Uluberia-I, Uluberia	Kalinagar, Daspara	-	60	-	-	6	-	
	Kurchiberia Khal	Howrah	Shyampur - I, Shyampur	Dingakhola, Kurchiberia	-	25	-	-	2.5	-	
	Hooghly (Right)	Howrah	Shyampur - I, Shyampur	Belari and nabagram, Jelepara to	-	-	520	-	5.2	-	
	MMC	Howrah	Uluberia-I, Uluberia	Maheshpur, Rathtola	-	-	-	1	4	-	
	Koria Birampur	Howrah	Bagnan-I, Bagnan	Kalyanpur, Birampur	-	-	-	1	4.25	-	
	Rupnarayan (L)	Howrah	Uluberia-I, Uluberia	Maheshpur, Mankur	-	300	-	-	30	-	
	Koria Birampur	Howrah	Bagnan-I, Bagnan	Kalyanpur, Natungram	-	-	-	1	4.25	-	
	Rupnarayan (Right)	Howrah	Amta-II,	G.B. Chitnan, Dakshin Chitnan	-	-	200	-	22	-	
	Rupnarayan (Left)	Howrah	Bagnan-I, Bagnan	Kalyanpur, Nasibpur, Dipamalita	-	350	-	-	7	-	
	Nabinbabu Khal	Howrah	Amta-I,	Khardha, Near Madhakul R.C.C	-	200	-	-	4	-	
	Adjacent portion of	Howrah	Amta-I,	Sirajbati, Mollagram	-	30	-	-	3	-	
	Banaspati Khal	Howrah	Shyampur - II, Rajapur	Kamina, Tulsiberia Manasamandir	-	40	-	-	4	-	
14	Silabati	Paschim Medinipur	Ghatal / Ghatal	Ward No. 13, 14, 16, 17 of Ghatal	-	-	-	6	300	-	
	Silabati	Paschim Medinipur	Ghatal / Ghatal	Harisinghpur , Pratappur,	-	-	-	-	10	-	
	Silabati	Paschim Medinipur	Daspur-I/ Daspur	250 meter & Rajnagar Ex-	-	-	-	-	25	-	
	Silabati	Paschim Medinipur	Ghatal/ Ghatal	150 meter & Panna Ex-Zamindary	-	-	-	-	15	-	
	Rupnarayan	Paschim Medinipur	Ghatal/ Ghatal	100 meter & from Ch. 9.00 Km to	-	-	-	-	10	-	
	Rupnarayan	Paschim Medinipur	Daspur-II/ Daspur	100 meter & Chetua Circuit	-	-	-	-	10	-	
	Dwarakeswar	Paschim Medinipur	Ghatal / Ghatal	250 meter & Ex-Zamindary	-	-	-	-	25	-	
	Dwarakeswar	Paschim Medinipur	Ghatal / Ghatal	100 meter & Ex-Zamindary	-	-	-	-	10	-	
	Kanki	Paschim Medinipur	Daspur-I/ Daspur	200 meter & from Ch. 57 Km to 58	-	-	-	-	20	-	
	Palaspai	Paschim Medinipur	Daspur-I/ Daspur	100 meter & from Ch. 26 Km to 27	-	-	-	-	10	-	
	Palaspai	Paschim Medinipur	Paschim medinipur/	60 meter & Chetua Circuit	-	-	-	-	7	-	
	Palaspai	Paschim Medinipur	Daspur-I/ Daspur	100 meter & Mohankhali Circuit	-	-	-	-	10	-	

Memo. No. 22-1/19/298, Dated: 31/03/2021 of SE- WC-II

	Palaspai	Paschim Medinipur	Daspur-II/ Daspur	500 Meter & Chetua Circuit	-	-	-	-	-	50	-
	Palaspai	Paschim Medinipur	Daspur-II/ Daspur/	300 Meter & Mohonkhali Circuit	-	-	-	-	-	30	-
	Old Cossye	Paschim Medinipur	Daspur-II/ Daspur	150 Meter & Dussaspur Circuit	-	-	-	-	-	15	-
	Bhosra Khal	Paschim Medinipur	Daspur-I/ Daspur	200 Meter & Dharma Ex-	-	-	-	-	1	96	-
	Parang	Paschim Medinipur	Daspur-I/ Daspur	R/B of Parang/ Chandipur	200	-	-	-	-	20	-
	4- Main Canal	Paschim Medinipur	Kharagpur-II/	Wooden Bridge 14.00 M at 4-	-	-	-	-	1	6	-
	4- Main Canal	Paschim Medinipur	Pingla/ Pingla	Wooden Bridge 14.00 M at 4-	-	-	-	-	1	3	-
	4- Main Canal	Paschim Medinipur	Pingla/ Pingla	Right bank of 4- Main canal,	-	-	-	-	-	8	-
	Left bank of Old	Paschim Medinipur	Keshpur/ Keshpur/	Ex-Zamindary bundh damage 400	-	-	-	-	-	19	-
	Nag Canal	Paschim Medinipur	Kharagpur-II/	Right bank of Nag canal 400	-	-	-	-	-	17	-
	Pattubi Khal	Paschim Medinipur	Pingla/ Pingla	Right bank of Pattubi Khal,	-	-	-	-	-	10	-
	Cossye	Paschim Medinipur	Midnapore Sadar,	8 no pathra, Khanamohan,	-	-	-	-	-	-	28.00
	Kalaichandi	Paschim Medinipur	Midnapore Sadar,	6/1 Panchkuri, 15 no Enayetur,	-	-	-	-	-	-	9.00
	Shilabati	Paschim Medinipur	Daspur-I, Daspur	Rajnagar, Kamalpur, Manoharpur-	-	-	-	-	-	-	13.00
	Rupnarayan	Paschim Medinipur	Daspur-II, Daspur	Benai, Kheput, Dudkumra,	-	-	-	-	-	-	44.00
	Jhumi	Paschim Medinipur	Ghatal/Ghatal	Mansuka- I, Mansuka- II, Iрpala	-	-	-	-	-	-	19.00
	Old Cossye	Paschim Medinipur	Daspur- I/ Daspur	Rajnagar, Basudevpur, Sarberia-	-	-	-	-	-	-	1.00
15	Bay of Bengal	Purba Medinipur	Ramnagar-I /	Talgachari-II / Chandpur /	-	-	2336	-	548.11	-	
	Bay of Bengal	Purba Medinipur	Ramnagar-I / Digha	Padima-II / Jatranullah, New Digha	-	-	150	-	43	-	
	Bay of Bengal	Purba Medinipur	Ramnagar-I / Digha	Padima-II / Birampur / Raypur	-	-	81	-	19.98	-	
	Bay of Bengal	Purba Medinipur	Ramnagar-I / Digha	Padima-II / Digha Mohana /	-	-	145	-	39.85	-	
	Bay of Bengal	Purba Medinipur	Ramnagar-I /	Talgachari-II / Jamra-Shyampur	-	-	503	-	59.86	-	
	Bay of Bengal	Purba Medinipur	Contai-II/ Junput	Dariapur/ Bankiput	-	-	53	-	40	-	
	Bay of Bengal	Purba Medinipur	Contai-II/ Junput	Dariapur/ Gopalpur	-	-	250	-	125	-	
	Rasulpur	Purba Medinipur	Contai-III/ Marishda	Kanaidighi/ Kalinagar/ Kanaidighi	-	100	-	1	5	-	
	Balighai Main Drain	Purba Medinipur	Contai-III/ Marishda	Kumirda/ Sukunia/ Sukunia	-	250	-	-	4	-	
	Balighai Main Drain	Purba Medinipur	Contai-III/ Marishda	Kumirda/ Uttar Sukunia/ Sukunia	-	500	-	-	7	-	
	Balighai Main Drain	Purba Medinipur	Bhagwanpur-II/	Boroj/ Powsia/ Powsia	-	450	-	2	6.5	-	
	Balighai Main Drain	Purba Medinipur	Bhagwanpur-II/	Boroj/ Powsia/ Powsia	-	350	-	-	5	-	
	Balighai Main Drain	Purba Medinipur	Bhagwanpur-II/	Boroj/ Powsia bazar/ Powsia	-	700	-	-	12	-	
	Balighai Main Drain	Purba Medinipur	Bhagwanpur-II/	Boroj/ Powsia near Rail line/	-	500	-	-	6	-	
	Rasulpur	Purba Medinipur	Bhagwanpur-II/	Boroj/ Golbagda/ Golbagda	-	1000	-	-	15	-	
	Rasulpur	Purba Medinipur	Bhagwanpur-II/	Arjunnagar/ Dhaipukuria/	-	850	-	2	10	-	
	Pania Khal	Purba Medinipur	Bhagwanpur-II/	Mathura/ Balyagobindapur/	-	210	-	1	16	-	
	Hooghly	Purba Medinipur	Khejuri-II / Khejuri	Nijkasba / Panchuria	-	-	400	-	48.81	-	
	Hooghly	Purba Medinipur	Nandigram-I /	Sonachura / Gangrachar	-	12	-	-	2.82	-	
	Hooghly	Purba Medinipur	Nandigram-I /	Sonachura / Jelingham	-	-	1500	-	349.57	-	
	Haldi	Purba Medinipur	Nandigram-I /	Vekutia / Dinobandhupur	-	850	-	-	78.18	-	

Email, Dt.:16.03.21 (SE)

5/04/2021 of SE- WC-III

	Haldi	Purba Medinipur	Nandigram-I /	Vekutia / Dinobandhupur	-	-	285	-	77.03	-	email: Dated:
	Rasulpur	Purba Medinipur	Khejuri-II / Khejuri	Nijkasba / Boga	-	375	-	-	62.52	-	
	Kultikri Khal	Purba Medinipur	Bhagabanpur-I /	Gurgram / Buraburi	-	140	-	-	13.45	-	
	Kaliaghai	Purba Medinipur	Bhagabanpur-I /	Bhimeswari / Sheulipur	-	-	-	1	36.6	-	
	Kaliaghai	Purba Medinipur	Patashpur-I / Patashpur	Chistipur-I / Talchitkini	-	-	75	-	1.24	-	
	Banpur Khal	Purba Medinipur	Sahid	Kharui-I	-	46	-	1	8.36	-	
	Rupnarayan	Purba Medinipur	Kolaghat, Mahisadal,	Kola-I & II, Amritberia,	-	488	200	1	23.89	-	
	New Cossyee	Purba Medinipur	Panskura,	Garpurusottampur, Ranihatay,	-	806	-	-	79.64	-	
	Piajkhalii Khal	Purba Medinipur	Panskura	Chaitanyapur-I,	-	149	-	-	9.13	-	
	Topa Khal	Purba Medinipur	Kolaghat	Khaniyadihi,Brindabanchak,	-	39	-	-	1.71	-	
	Bhosra Khal	Purba Medinipur	Panskura	Mysora	-	13	-	-	0.93	-	
	Buxi	Purba Medinipur	Pingla,Panskura	Pindrui,Chaitanyapur-I,	-	447	-	-	74.6	-	
	Patchanda Khal	Purba Medinipur	Pingla	Gobardhanpur	-	120	-	-	7.8	-	
	Chandia	Purba Medinipur	Moyna,Pingla	Bakcha, Paramanandapur,	-	465	-	-	48.86	-	
	Haldi	Purba Medinipur	Mahisadal	Ramani Mohan Maity	-	90	-	-	0.63	-	
	Hooghly	Purba Medinipur	Sutahata	Kukrahati	-	233	-	-	10.04	-	
	Taltola Khal	Purba Medinipur	Sutahata	Brindabanchak	-	110	-	-	7.35	-	
	Kababi Tributary-I	Purba Medinipur	Pingla	Pindrui	-	170	-	-	9.42	-	
16	R/B and L/B of	Uttar 24 Parganas	Baduria	Vill.Baidyapara, Mouza: Bajitpur	-	300	-	-	15.6	-	
	L/B of Ichamati	Uttar 24 Parganas	Baduria	Fatullapur	30	150	-	-	12.3	4.00	
	L/B of Ichamati	Uttar 24 Parganas	Baduria	Dakshin Media	30	200	-	-	14.9	4.00	
	L/B of Ichamati	Uttar 24 Parganas	Baduria	Bajitpur	25	175	-	-	12.85	4.00	
	L/B of Ichamati	Uttar 24 Parganas	Baduria	Naya bastia	30	100	-	-	9.7	4.00	
	R/B of Ichamati	Uttar 24 Parganas	Basirhat - I	Dakshin Bagundy	-	100	-	-	5.2	-	
	L/B of Ichamati	Uttar 24 Parganas	Basirhat - I	Panitor	30	1250	-	-	69.5	4.00	
	L/B of Ichamati	Uttar 24 Parganas	Basirhat - I	Akharpur	20	230	-	-	14.96	2.00	
	R/B of Ichamati	Uttar 24 Parganas	Basirhat - I	Ward no-16	10	40	-	-	3.58	2.00	
	R/B of Ichamati	Uttar 24 Parganas	Basirhat - I	Ward no-15	25	70	-	-	7.39	3.00	
	L/B of Ichamati	Uttar 24 Parganas	Basirhat - I	Chowrah	60	430	-	-	31.36	4.00	
	Outfall Channel of	Uttar 24 Parganas	Basirhat - I	Mouza - Akharpur	-	300	-	-	15.6	-	
	L/B and R/B of	Uttar 24 Parganas	Basirhat - I / Basirhat	Mouza - Basirhat & Taparchar ,	-	1030	-	-	53.56	-	
	R/B of Ichamati	Uttar 24 Parganas	Baduria	Deep Media	20	120	-	-	9.24	2.00	
	Buri	Uttar 24 Parganas	Haroa	Gopalpur-I	-	220	-	-	11.44	-	
	Haroagong	Uttar 24 Parganas	Haroa	Ranigachhi	-	80	-	-	4.16	-	
	Dansa(R/B)	Uttar 24 Parganas	Hasnabad	Bedemari	-	75	-	-	3.9	3.00	
	Dansa	Uttar 24 Parganas	Hasnabad	Chak Patli Khanpur	270	-	-	-	40.5	25.00	
	Dansa(R/B)	Uttar 24 Parganas	Hasnabad	Ichapur	-	240	-	-	12.48	-	
	Dansa(R/B)	Uttar 24 Parganas	Hasnabad	Sulkuni Abad	85	665	-	-	134.58	15.00	

Kantakhali (R/B)	Uttar 24 Parganas	Hasnabad	Amlani	-	30	-	-	-	1.56	-
Kantakhali (R/B)	Uttar 24 Parganas	Hasnabad	Abad Mohanpur	-	100	-	-	-	5.2	-
Kantakhali (R/B)	Uttar 24 Parganas	Hasnabad	Chimta	-	40	-	-	-	2.08	-
Kantakhali (L/B)	Uttar 24 Parganas	Hasnabad	Par Bhawanipur	-	55	-	-	-	2.86	-
Kantakhali (L/B)	Uttar 24 Parganas	Hasnabad	Ghoshalhati	-	500	-	-	-	26	-
Dansa(L/B)	Uttar 24 Parganas	Hasnabad	Chalkpatli	-	200	-	-	-	10.4	-
Dansa(L/B)	Uttar 24 Parganas	Hasnabad	Khanpukur	-	180	-	-	-	9.36	-
Dansa(L/B)	Uttar 24 Parganas	Hasnabad	Tangramari	-	160	-	-	-	8.32	-
Kantakhali (L/B)	Uttar 24 Parganas	Hasnabad	Tangramari	-	90	-	-	-	4.68	-
Kantakhali (L/B)	Uttar 24 Parganas	Hasnabad	Angnara	-	80	-	-	-	4.16	-
Kantakhali (L/B)	Uttar 24 Parganas	Hasnabad	Rajnagar	-	60	-	-	-	3.12	-
Kantakhali (R/B)	Uttar 24 Parganas	Hasnabad	Laskarnagar	-	90	-	-	-	4.68	-
Ichamati(R/B)	Uttar 24 Parganas	Hasnabad	Kalutala	-	75	-	-	-	3.9	-
Ichamati(R/B)	Uttar 24 Parganas	Hasnabad	Champatala	-	75	-	-	-	3.9	-
Ichamati(R/B)	Uttar 24 Parganas	Hasnabad	Charnarayyanpur	-	35	-	-	-	1.82	-
Ichamati(R/B)	Uttar 24 Parganas	Hasnabad	Barunhat	-	65	-	-	-	3.38	-
Dansa(L/B)	Uttar 24 Parganas	Hasnabad	Muktarchawk	30	155	-	-	-	12.56	4.00
R/B of Ichamati	Uttar 24 Parganas	Hasnabad / Taki	Ward no-2 , 3 and 4	40	55	-	-	-	45.26	5.00
R/B of Ichamati	Uttar 24 Parganas	Hasnabad / Taki	Ward No -02 ,03 and 05	-	560	-	-	-	29.12	-
Outfall Channel of	Uttar 24 Parganas	Hasnabad/ Taki	Ward No -12 and 13	-	180	-	-	-	9.36	-
Ichamati(R/B)	Uttar 24 Parganas	Hasnabad/ Taki	Ward no. 5 (Dargatala)	45	210	-	-	-	17.67	5.00
Ichamati(R/B)	Uttar 24 Parganas	Hasnabad/ Taki	Ward no. 1 (Jalalpur)	-	350	-	-	-	18.2	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Samsernagar	-	1000	-	-	-	52	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Malekanghumti	80	400	-	-	-	32.8	6.00
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Charalkhali	-	170	-	-	-	8.84	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Sahebkhali	-	240	-	-	-	12.48	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Kanaikati	-	120	-	-	-	6.24	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Hingalganj	-	230	-	-	-	11.96	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Choto Sahebkhali	-	300	-	-	-	15.6	-
Raimongal (L/B)	Uttar 24 Parganas	Hingalganj	Pergumti	-	100	-	-	-	5.2	-
Raimongal (L/B)	Uttar 24 Parganas	Hingalganj	Madhabkati	-	530	-	-	-	27.56	-
Raimongal (L/B)	Uttar 24 Parganas	Hingalganj	Ramapur	-	100	-	-	-	5.2	-
Raimongal (L/B)	Uttar 24 Parganas	Hingalganj	Pukuria	-	230	-	-	-	11.96	-
Sahebkhali (L/B)	Uttar 24 Parganas	Hingalganj	Choto Sahebkhali	-	170	-	-	-	8.84	-
Sahebkhali (R/B)	Uttar 24 Parganas	Hingalganj	Amberia	-	60	-	-	-	3.12	-
Sahebkhali (R/B)	Uttar 24 Parganas	Hingalganj	Ketarchak	-	150	-	-	-	7.8	-
Goureswar (R/B)	Uttar 24 Parganas	Hingalganj	Dharamberia	-	210	-	-	-	10.92	-
Goureswar (R/B)	Uttar 24 Parganas	Hingalganj	Janar Chak	-	90	-	-	-	4.68	-

Goureswar (R/B)	Uttar 24 Parganas	Hingalganj	Moukhali	-	150	-	-	-	7.8	-
Goureswar (R/B)	Uttar 24 Parganas	Hingalganj	Rupamari Bazaar	-	100	-	-	-	5.2	-
Goureswar (L/B)	Uttar 24 Parganas	Hingalganj	Kadamberia	-	100	-	-	-	5.2	-
Goureswar (L/B)	Uttar 24 Parganas	Hingalganj	11 no. Sandeler Bill	-	100	-	-	-	5.2	-
Goureswar (L/B)	Uttar 24 Parganas	Hingalganj	14 no. sandeler Bill	-	100	-	-	-	5.2	-
Goureswar (L/B)	Uttar 24 Parganas	Hingalganj	Nabinganj	-	10	-	-	-	0.52	-
Goureswar (L/B)	Uttar 24 Parganas	Hingalganj	3 no. Amberia	-	80	-	-	-	4.16	-
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Banstola	45	175	-	-	-	15.85	10.00
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Rupamari	40	90	-	-	-	10.68	8.00
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Kumirmari	-	75	-	-	-	3.9	-
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Bainara	80	175	-	-	-	21.1	12.00
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Dhanikhali	-	40	-	-	-	2.08	-
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Kakaria	-	90	-	-	-	4.68	-
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Bailani	-	90	-	-	-	4.68	-
Dansa(L/B)	Uttar 24 Parganas	Hingalganj	Durgapur	-	40	-	-	-	2.08	-
Sahebkhali (R/B)	Uttar 24 Parganas	Hingalganj	Swarupkathi	-	60	-	-	-	3.12	-
Kalindi (R/B)	Uttar 24 Parganas	Hingalganj	Keora khali	-	60	-	-	-	3.12	-
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Rupamari Bazar	120	150	-	-	-	25.8	16.00
L/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Dulduli	120	220	-	-	-	29.44	12.00
R/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Sandelerbil	60	160	-	-	-	17.32	6.00
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Dulduli	60	150	-	-	-	16.8	6.00
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Bispur	-	210	-	-	-	10.92	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Char Sahebkhali	120	250	-	-	-	31	12.00
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Charalkhali	100	300	-	-	-	30.6	8.00
L/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Pukuria	80	120	-	-	-	18.24	6.00
R/B of Ichamati	Uttar 24 Parganas	Hingalganj	Barunhat	30	800	-	-	-	8.66	4.00
Buri	Uttar 24 Parganas	Minakhan	Mallickgheri	-	150	-	-	-	7.8	-
Buri	Uttar 24 Parganas	Minakhan	Charpara	-	200	-	-	-	10.4	-
Bidyadhar	Uttar 24 Parganas	Minakhan	Harinholo	180	-	-	-	-	27	16.00
Bidyadhar	Uttar 24 Parganas	Minakhan	Nepurhoola	-	200	-	-	-	10.4	-
L/B of Buri	Uttar 24 Parganas	Minakhan	Uchildah	192	180	-	-	-	38.16	12.00
Buri	Uttar 24 Parganas	Minakhan	Kochurhula	-	200	-	-	-	10.4	-
Haroagong	Uttar 24 Parganas	Minakhan	Behari	-	150	-	-	-	7.8	-
Matia	Uttar 24 Parganas	Minakhan	Kalibari	45	-	-	-	-	6.75	12.00
Matia	Uttar 24 Parganas	Minakhan	Chandibari	30	-	-	-	-	4.5	9.00
Matia	Uttar 24 Parganas	Minakhan	Bhola	20	-	-	-	-	3	4.00
Matia	Uttar 24 Parganas	Minakhan	Payadamari	25	-	-	-	-	3.75	5.00
Matia	Uttar 24 Parganas	Minakhan	Mediapara	25	-	-	-	-	3.75	4.00

Matia	Uttar 24 Parganas	Minakhan	Champali	-	100	-	-	-	5.2	-
Bidyadhari	Uttar 24 Parganas	Minakhan	Chaital	-	150	-	-	-	7.8	-
Haroagong	Uttar 24 Parganas	Minakhan	Uchildah	-	50	-	-	-	2.6	-
R/B of Matia	Uttar 24 Parganas	Minakhan	Neruli	70	-	-	-	-	10.5	5.00
Ghatihara (L/B)	Uttar 24 Parganas	Sandeshkhali - I	Nityaberia	-	110	-	-	-	5.72	-
Ghatihara (L/B)	Uttar 24 Parganas	Sandeshkhali - I	Paschim Bholakhali	-	80	-	-	-	4.16	-
Dansa(R/B)	Uttar 24 Parganas	Sandeshkhali - I	Radhanagar	-	110	-	-	-	5.72	-
Dansa(R/B)	Uttar 24 Parganas	Sandeshkhali - I	Bholakhali	-	140	-	-	-	7.28	-
Ghatihara (L/B)	Uttar 24 Parganas	Sandeshkhali - I	Kalinagar	-	220	-	-	-	11.44	-
Benti (L/B)	Uttar 24 Parganas	Sandeshkhali - I	Gazalia	-	160	-	-	-	8.32	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Baunia Abad 7 no.	30	700	-	-	-	81.4	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Baunia Abad 5 no.	150	700	-	-	-	58.9	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Baunia Abad 3 no.	-	150	-	-	-	22.5	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Baunia Abad 2 no.	-	90	-	-	-	13.5	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Baunia Abad 1 no.	-	90	-	-	-	13.5	-
L/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	4 no. Ghola	200	400	-	-	-	50.8	-
L/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	4 no. Para	100	400	-	-	-	35.8	-
L/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Nazat Bantala	90	100	-	-	-	18.7	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Kammary	-	50	-	-	-	2.6	-
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Hatgachhi	-	450	-	-	-	23.4	-
Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Khariahat	-	150	-	-	-	7.8	-
Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Bazpara	-	50	-	-	-	2.6	-
Bidyadhari	Uttar 24 Parganas	Sandeshkhali - I	Hatgachhi	-	500	-	-	-	26	-
R/B of Dansa	Uttar 24 Parganas	Sandeshkhali - I	Bholakhali	50	120	-	-	-	13.74	6.00
L/B of Ghatihara	Uttar 24 Parganas	Sandeshkhali - I	Kalinagar	80	150	-	-	-	19.8	8.00
R/B of Benti	Uttar 24 Parganas	Sandeshkhali - I	Dakshin Akhratala	30	100	-	-	-	9.7	3.00
Choto Kalagachi	Uttar 24 Parganas	Sandeshkhali - II	Tushkhali	-	400	-	-	-	20.8	-
Boro Kalagachi	Uttar 24 Parganas	Sandeshkhali - II	Atapur	-	895	-	-	-	46.54	-
Roymongal(R/B)	Uttar 24 Parganas	Sandeshkhali - II	Monipur	-	780	-	-	-	40.56	-
Choto Kalagachi	Uttar 24 Parganas	Sandeshkhali - II	Dwarir Jungal	-	150	-	-	-	7.8	-
Bani Boyalia (L/B)	Uttar 24 Parganas	Sandeshkhali - II	Gabberia	-	260	-	-	-	13.52	-
Bani Boyalia (L/B)	Uttar 24 Parganas	Sandeshkhali - II	Durgamondap	-	120	-	-	-	6.24	-
Bidya (L/B)	Uttar 24 Parganas	Sandeshkhali - II	Jyotishpur	-	120	-	-	-	6.24	-
Choto Kalagachi	Uttar 24 Parganas	Sandeshkhali - II	Dwarir Jungal	-	120	-	-	-	6.24	-
Bani Boalia(L/B)	Uttar 24 Parganas	Sandeshkhali - II	Jelliakhali	-	270	-	-	-	14.04	-
Chhoto Kalagachi	Uttar 24 Parganas	Sandeshkhali - II	Dhamakhali	193	170	-	-	-	37.79	15.00
Sahebkhali (R/B)	Uttar 24 Parganas	Sandeshkhali - II	Sitalia (Golabarighat)	40	200	-	-	-	16.4	6.00
Sahebkhali (R/B)	Uttar 24 Parganas	Sandeshkhali - II	Sitalia	100	1000	-	-	-	67	10.00

Baro Kolagachi (Uttar 24 Parganas	Sandeshkhali - II	Sitalia	-	500	-	-	-	26	-
Baro Kolagachi	Uttar 24 Parganas	Sandeshkhali - II	Khulna	-	110	-	-	-	5.72	-
Dansa (L/B)	Uttar 24 Parganas	Sandeshkhali - II	Dholkhali	-	120	-	-	-	6.24	-
Dansa (L/B)	Uttar 24 Parganas	Sandeshkhali - II	Bowthakurani	-	100	-	-	-	5.2	-
Dansa (L/B)	Uttar 24 Parganas	Sandeshkhali - II	Tongtala	-	100	-	-	-	5.2	-
R/B of Rampur	Uttar 24 Parganas	Sandeshkhali - II	Rampur	-	30	-	-	-	1.56	-
R/B of Rampur	Uttar 24 Parganas	Sandeshkhali - II	Dhamakhali	-	30	-	-	-	1.56	-
L/B of	Uttar 24 Parganas	Sandeshkhali - II	9 no. Dwarir Jungal	60	80	-	-	-	13.16	6.00
L/B of Bani Boalia	Uttar 24 Parganas	Sandeshkhali - II	Jelliakhali	30	50	-	-	-	7.1	4.00
L/B of Rampur	Uttar 24 Parganas	Sandeshkhali - II	Jelliakhali	40	50	-	-	-	8.6	4.00
L/B of Tushkhali	Uttar 24 Parganas	Sandeshkhali - II	Bhanga Tushkhali and Korakati	40	50	-	-	-	8.6	4.00
L/B of Bani Boalia	Uttar 24 Parganas	Sandeshkhali - II	Durgamandop	70	90	-	-	-	15.18	6.00
L/B of Bidya	Uttar 24 Parganas	Sandeshkhali - II	Jyotishpur	30	50	-	-	-	7.1	5.00
R/B of	Uttar 24 Parganas	Sandeshkhali - II	Tushkhali	40	50	-	-	-	8.6	5.00
R/B and L/B of	Uttar 24 Parganas	Swarupnagar	Banglani	-	100	-	-	-	5.2	-
Haroagong	Uttar 24 Parganas	Haroa	Ranigachhi	-	150	-	-	-	12	-
R/B of Matia	Uttar 24 Parganas	Minakhan	Uttar Chandibari	30	-	-	-	-	50	12.00
L/B of Dansa	Uttar 24 Parganas	Hasnabad	Howlipara	-	20	-	-	-	2.37	-
L/B of Dansa	Uttar 24 Parganas	Hasnabad	Pansighata	-	30	-	-	-	1.2	-
L/B of Dansa	Uttar 24 Parganas	Hasnabad	Kholsakhali	-	50	-	-	-	1.44	-
L/B of Dansa	Uttar 24 Parganas	Hingalganj	Kakaria	-	80	-	-	-	0.86	-
L/B of Dansa	Uttar 24 Parganas	Hasnabad and	Lebutala and Sitalia	-	-	-	-	2	2.89	-
L/B of Dansa	Uttar 24 Parganas	Hingalganj	Bainara Jetty Ghat	-	45	-	-	-	2.37	-
L/B of Dansa	Uttar 24 Parganas	Hingalganj	Banstola	-	200	-	-	-	3.4	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Malekanagumti	-	55	-	-	-	2.49	-
L/B of Raimongal	Uttar 24 Parganas	Hingalganj	Sardarpura	-	45	-	-	-	2.57	-
L/B of Raimongal	Uttar 24 Parganas	Hingalganj	Ramapur	-	210	-	-	-	3.82	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Sahebkhali	-	-	-	-	1	1.44	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Malekanagumti	-	-	-	-	1	1.94	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Charalkhali	-	-	-	-	3	4.84	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Samsernagar	-	150	-	-	-	2.43	-
L/B of Raimongal	Uttar 24 Parganas	Hingalganj	Jagannath Ghat	-	135	-	-	-	1.81	-
L/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Pukuria	-	165	-	-	-	1.79	-
R/B of Sahebkhali	Uttar 24 Parganas	Sandeshkhali II	Sitalia	-	165	-	-	-	1.64	-
L/B of Dansa	Uttar 24 Parganas	Hingalganj, Hasnabad	Bainara, Singerkati	-	-	-	-	35	0.67	-
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Bhandarkhali	-	80	-	-	-	1.83	-
L/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Choto Sahebkhali	-	120	-	-	-	4.5	-
R/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Swarupkathi	-	250	-	-	-	6.7	-

R/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Ketarchak	-	100	-	-	4.5	-
L/B of Goureswar	Uttar 24 Parganas	Hingalganj	Kothabari	-	-	-	1	0.67	-
L/B of Goureswar	Uttar 24 Parganas	Hingalganj	Mamudpur	-	90	-	-	1.64	-
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Khejurberia	-	100	-	-	1.88	-
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Bispur	-	110	-	-	2.49	-
R/B of Sahebkhali	Uttar 24 Parganas	Hingalganj	Swarupkathi	-	100	-	-	3.5	-
L/B and R/B of	Uttar 24 Parganas	Hingalganj	Amberia and Banstala	-	-	-	2	2.49	-
R/B of Goureswar	Uttar 24 Parganas	Hingalganj	Geomari	-	20	-	-	0.93	-
L/B and R/B of	Uttar 24 Parganas	Hingalganj	Bhandarkhali, geomari	-	-	-	4	2.37	-
L/B and R/B of	Uttar 24 Parganas	Hingalganj	Kothabari, 14 No, sandeler Bill	-	-	-	4	2.37	-
L/B of Dansa	Uttar 24 Parganas	Hingalganj	Kakaria and Durgapur Bainara	-	-	-	3	2.44	-
R/B of Gomti	Uttar 24 Parganas	Hingalganj	Manada sluice	-	70	-	-	0.76	-
R/B of Kantakhali	Uttar 24 Parganas	Hasnabad	BSF Camp	-	30	-	-	1.21	-
R/B of Kalindi	Uttar 24 Parganas	Hingalganj	Gumti , charalakhali, sridharkati	-	250	-	-	3.58	-
R/B of Sahebkhali	Uttar 24 Parganas	Sandeshkhali II	Sitalia Golabarighat	-	150	-	-	2.85	-
L/b of Baro	Uttar 24 Parganas	Sandeshkhali II	Sitalia	-	120	-	-	2.59	-
L/B of Benti	Uttar 24 Parganas	Sandeshkhali I	Gojalia	-	115	-	-	2.01	-
R/B of Benti	Uttar 24 Parganas	Sandeshkhali I	Dakshin Akhratala	-	95	-	-	1.14	-
L/B of Ghatihara	Uttar 24 Parganas	Sandeshkhali I	Kalinagar and Nityaberia	-	165	-	-	2.5	-
L/B of Ghatihara	Uttar 24 Parganas	Sandeshkhali I	Bholakhali	-	170	-	-	2.64	-
L/B of Bani Boalia	Uttar 24 Parganas	Sandeshkhali II	Jelliakhali	-	160	-	-	2.6	-
R/B of Tushkhali	Uttar 24 Parganas	Sandeshkhali II	Durgamandap	-	115	-	-	1.68	-
L/B of Boalia	Uttar 24 Parganas	Sandeshkhali II	Jelliakhali (W)	-	210	-	-	3.19	-
R/B of Ghatihara	Uttar 24 Parganas	Sandeshkhali II	Dwarrir Jungle	-	135	-	-	2.4	-
R/B of Dansa	Uttar 24 Parganas	Hasnabad	Bhaijuri Khal	-	105	-	-	2.09	-
L/B Kantakhali	Uttar 24 Parganas	Hasnabad	Ghoshalhati	-	185	-	-	3.07	-
R/B of Dansa	Uttar 24 Parganas	Hasnabad	Ichapur	-	120	-	-	2.16	-
L/B of Bidya	Uttar 24 Parganas	Sandeshkhali II	Gubberia	-	250	-	-	5.54	-
L/B of Bidya	Uttar 24 Parganas	Sandeshkhali II	Gubberia	-	220	-	-	3.42	-
R/B of	Uttar 24 Parganas	Sandeshkhali II	Atapur	-	145	-	-	2.74	-
R/B Raimongal	Uttar 24 Parganas	Sandeshkhali II	Monipur	-	135	-	-	2.96	-
L/B of Hatakhalii	Uttar 24 Parganas	Sandeshkhali II	Lalkachari	-	185	-	-	2.82	-
R/B of Ichamati	Uttar 24 Parganas	Basirhat Municipality	Taparchar	-	375	-	-	5	-
R/B of Ichamati	Uttar 24 Parganas	Basirhat Municipality	Naihati	-	180	-	-	3.51	-
L/B of Ichamati	Uttar 24 Parganas	Baduria Municipality	Baduria	-	350	-	-	5	-
R/B of Ichamati	Uttar 24 Parganas	Hasnabad	Taki W-2	-	145	-	-	3.06	-
R/B of Ichamati	Uttar 24 Parganas	Hasnabad	Taki W-2	-	210	-	-	4.98	-
R/B of Ichamati	Uttar 24 Parganas	Hasnabad	Taki W-1	-	100	-	-	3.85	-

L/B of Ichamati	Uttar 24 Parganas	Basirhat-I	Akharpur	-	225	-	-	4.33	-	
L/B of Ichamati	Uttar 24 Parganas	Basirhat-I	Panitore	-	106	-	-	2.76	-	
R/B of Ichamati	Uttar 24 Parganas	Basirhat-I	Bagundi (S)	-	120	-	-	3.22	-	
R/B of Ichamati	Uttar 24 Parganas	Basirhat Municipality	Taki & Basirhat	-	-	-	13	2.95	-	
L/B of Ichamati	Uttar 24 Parganas	Swarupnagar	Dolderpara	-	65	-	-	1.25	-	
R/B of Ichamati	Uttar 24 Parganas	Sandeshkhali-I	Bounia Abad	-	75	-	-	1.1	-	
R/B of Ichamati	Uttar 24 Parganas	Sandeshkhali-I	Bounia Abad	-	75	-	-	1.1	-	
L/B of Ichamati	Uttar 24 Parganas	Sandeshkhali-I	Parsemari	10	350	-	-	26.11	-	
L/B of Ichamati	Uttar 24 Parganas	Sandeshkhali-I	Nazat	-	155	-	-	2.66	-	
L/B of Ichamati	Uttar 24 Parganas	Sandeshkhali-I	Ahamedpur	-	65	-	-	1.09	-	
R/B of Choto	Uttar 24 Parganas	Sandeshkhali II	Dhamakhali, Bermajur	-	375	-	-	6.51	-	
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali-I	Hatgachi Jetty	-	65	-	-	1.22	-	
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali-I	7 & 9 no. Hatgachi	-	118	-	-	2.79	-	
R/B of Bidyadhari	Uttar 24 Parganas	Sandeshkhali-I	Hatgachi	-	-	-	3	2.73	-	
R/B of Metia	Uttar 24 Parganas	Minakhan	Bachra	-	270	-	-	5.21	-	
R/B of Metia	Uttar 24 Parganas	Minakhan	Mohanpur	-	75	-	-	1.75	-	
Hooghly	Uttar 24 Parganas	Khardah Municipality	Near Camp Ghat	-	-	30	-	4.84	-	
Hooghly	Uttar 24 Parganas	Garulia Municipality	Near Kangali Ghat Ward No.- 8	-	60	-	-	14.29	-	
Hooghly	Uttar 24 Parganas	Garulia Municipality	Near Bichali Ghat Ward No.- 19	-	60	-	-	9.93	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa P.S.-	G.P.- Sonapukur- Sankarpur	-	120	-	-	8.37	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa P.S.-	G.P. - Kulti	-	150	-	-	12.8	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa P.S.-	G.P. - Kulti	-	200	-	-	17.02	-	
Hooghly	Uttar 24 Parganas	Baranagar Municipality	North side of Kanch Mandir Ghat	-	-	60	-	8.71	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa P.S.-	G.P. - Kulti	-	145	-	-	4.82	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa and P.S.-	G.P.- Kulti	-	130	-	-	4.81	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa and P.S.-	Near- Ghaskhali	-	65	-	-	4.85	-	
Bidyadhari	Uttar 24 Parganas	Block- Haroa and P.S.-	Near- Baroj	-	60	-	-	4.83	-	
Hooghly	Uttar 24 Parganas	Baranagar Municipality	Under Ward No.- 30	-	-	54	-	4.76	-	
Hooghly	Uttar 24 Parganas	Khardah Municipality	At Sukchar	-	-	50	-	4.76	-	
Hooghly	Uttar 24 Parganas	Garulia MunicipalityP.S.-	Under Ward No.- 20	-	-	20	-	4.77	-	
17	Muriganga	Dakshin 24 Pargana	Kakdwip	Ramtanunagar	-	200	-	-	4.81	-
	Muriganga	Dakshin 24 Pargana	Kakdwip	Madhusudanpur	-	770	-	-	6.2	-
	Muriganga	Dakshin 24 Pargana	Kakdwip	Sibkalinagar	-	100	-	-	12.94	-
	Muriganga	Dakshin 24 Pargana	Kakdwip	Uttarchandranagar	-	100	-	-	8	-
	Kurulia Khal	Dakshin 24 Pargana	Kakdwip	Srinagar	-	150	-	-	12	-
	Kurulia Khal	Dakshin 24 Pargana	Kakdwip	Kashinagar	-	150	-	-	12	-
	Gundakanta	Dakshin 24 Pargana	Kakdwip	Mrinalnagar	-	250	-	-	1509	-
	Banstala	Dakshin 24 Pargana	Kakdwip	Manmathapur	-	30	-	-	2.4	-

Gobadia	Dakshin 24 Pargana	Kakdwip	Harendranagar	-	200	-	-	-	16	-
Ghotahara	Dakshin 24 Pargana	Kakdwip	Thangora	-	150	-	-	-	12	-
Banstala	Dakshin 24 Pargana	Kakdwip	Gobindarampur	-	-	-	-	1	23	-
Kalnagini	Dakshin 24 Pargana	Kakdwip	Akshaynagar	-	-	-	-	1	3	-
Br. Of Kalnagini	Dakshin 24 Pargana	Kakdwip	Buddhapur	-	-	-	-	1	2	-
Khugudanga	Dakshin 24 Pargana	Kakdwip	Manmathapur	-	400	-	-	-	9.99	-
Banstala	Dakshin 24 Pargana	Kakdwip	Sankiberia	-	100	-	-	-	3.56	-
Muriganga	Dakshin 24 Pargana	Kakdwip	Laxmipur	-	300	-	-	-	9.92	-
Hooghly	Dakshin 24 Pargana	Kakdwip	Ramtanunagar	-	100	-	-	-	4	-
Choramukhi	Dakshin 24 Pargana	Kakdwip	Bamanagar(S)	-	-	-	-	1	5	-
Muriganga	Dakshin 24 Pargana	Namkhana	Budhakhalii	-	420	-	-	-	33.6	-
Muriganga	Dakshin 24 Pargana	Namkhana	Rajnagar	-	200	-	-	-	16	-
Muriganga	Dakshin 24 Pargana	Namkhana	Ganeshnagar	-	700	-	-	-	56	-
Muriganga	Dakshin 24 Pargana	Namkhana	Nadabhangha	-	630	-	-	-	38	-
Hatania Dowania	Dakshin 24 Pargana	Namkhana	Narayanpur	-	200	-	-	-	16	-
Hatania Dowania	Dakshin 24 Pargana	Namkhana	Iswaripur	-	380	-	-	-	22.14	-
Saptamukhi	Dakshin 24 Pargana	Namkhana	Iswaripur	-	200	-	-	-	16	-
Saptamukhi	Dakshin 24 Pargana	Namkhana	Durgapur	-	250	-	-	-	20	-
Chenargang	Dakshin 24 Pargana	Namkhana	Patibonnia	-	500	-	-	-	40	-
Muriganga	Dakshin 24 Pargana	Namkhana	Uttarnarayanganj	-	350	-	-	-	28	-
Chenargang	Dakshin 24 Pargana	Namkhana	Debnagar	-	400	-	-	-	32	-
Saptamukhi	Dakshin 24 Pargana	Namkhana	Haripur	-	500	-	-	-	40	-
Hatania Dowania	Dakshin 24 Pargana	Namkhana	Dwariknagar	-	250	-	-	-	20	-
Chenargang	Dakshin 24 Pargana	Namkhana	Mousuni (E)	-	300	-	-	-	24	-
Chenargang	Dakshin 24 Pargana	Namkhana	Baliara (E)	-	300	-	-	-	24	-
Muriganga	Dakshin 24 Pargana	Namkhana	Baliara (W)	-	60	-	-	-	4.8	-
Bay of Bengal	Dakshin 24 Pargana	Namkhana	PA & DQ reach & Kasmohal	115	345	-	-	-	44	0.12
Bay of Bengal	Dakshin 24 Pargana	Namkhana	Laxmipur Abad	-	400	-	-	-	32	-
Chenergang	Dakshin 24 Pargana	Namkhana	a) Near Bagdanga bazar,	-	45	-	-	-	3	-
Bay of Bengal	Dakshin 24 Pargana	Namkhana	Baro soyal South, Saltghery	200	200	-	-	-	50	0.30
Muriganga	Dakshin 24 Pargana	Namkhana	Disaru point,	-	250	-	-	-	7.5	-
Hatania-Doania	Dakshin 24 Pargana	Namkhana	Near fisheri tranning Center	-	100	-	-	-	3.5	-
Hatania-Doania	Dakshin 24 Pargana	Namkhana	Near Khatua Baza and three point	-	150	-	-	-	5	-
Chenergang	Dakshin 24 Pargana	Namkhana	Dakhin Durgapur	-	150	-	-	-	5	-
Saptamukhi	Dakshin 24 Pargana	Namkhana	AB Reach, Bhabo Roy Ghery and	-	550	-	-	-	24	-
Muriganga	Dakshin 24 Pargana	Namkhana	Mousuni West and Kusumtala East	-	-	-	-	3	6	-
Edward Creek	Dakshin 24 Pargana	Namkhana	Shibpur and Rajnagar	-	-	-	-	2	8	-
Chenergang	Dakshin 24 Pargana	Namkhana	Near Hujuter Kheya Ghat	-	250	-	-	-	7	-

Muriganga	Dakshin 24 Pargana	Namkhana	Kusumtala (W)	-	300	-	-	-	25	-
Muriganga	Dakshin 24 Pargana	Sagar	Bankimnagar	50	508	-	-	-	97.97	0.04
Muriganga	Dakshin 24 Pargana	Sagar	Sumatinagar	370	793	-	-	-	122.83	0.32
Muriganga	Dakshin 24 Pargana	Sagar	Kachuberia	-	498	-	-	-	42.98	-
Muriganga	Dakshin 24 Pargana	Sagar	Muriganga	-	80	-	-	-	6.4	-
Muriganga	Dakshin 24 Pargana	Sagar	Kastala	-	100	-	-	-	8	-
Bay of Bengal	Dakshin 24 Pargana	Sagar	Dhablat	-	210	100	-	-	52.86	-
Bay of Bengal	Dakshin 24 Pargana	Sagar	Beguakhali	50	470	-	-	-	51.44	0.04
Hooghly	Dakshin 24 Pargana	Sagar	Sapkhalia	-	1020	-	-	-	59.45	-
Hooghly/Muriganga	Dakshin 24 Pargana	Sagar	Ghoramara	880	2500	-	-	-	99.63	1.20
Harinbari Khal	Dakshin 24 Pargana	Sagar	Harinbari	-	100	-	-	-	8	-
Bay of Bengal	Dakshin 24 Pargana	Sagar	Shibpur	-	130	-	-	-	16.95	-
Bay of Bengal	Dakshin 24 Pargana	Sagar	Chemaguri	-	150	-	-	-	17.85	-
Chackful Dubi khal	Dakshin 24 Pargana	Sagar	Krishnanagar	-	80	-	3	-	12.54	-
Hooghly	Dakshin 24 Pargana	Sagar	Radha Krishnapur	-	-	140	-	-	14.84	-
Hooghly	Dakshin 24 Pargana	Sagar	Mandirtala	-	-	30	-	-	6.68	-
Bay of Bengal	Dakshin 24 Pargana	Patharpratima	Gobardhanpur	400	300	400	-	-	137.5	0.85
Jagaddal	Dakshin 24 Pargana	Patharpratima	Sitarampur	-	360	-	-	-	35	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Krishnadaspur	450	650	-	-	-	118.3	0.85
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Chotorakshashkhalia	-	650	-	-	-	52	-
Rakhshashkhalia Khal	Dakshin 24 Pargana	Patharpratima	Khetramohonpur	-	250	-	-	-	20	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Gobindapur Abad	-	500	-	-	-	40	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Brazaballavpur	-	500	-	-	-	40	-
Walls Creek	Dakshin 24 Pargana	Patharpratima	Kishorinagar	-	200	-	-	-	16	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Bhagatpur	-	100	-	-	-	8	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Barodapur	-	100	-	-	-	8	-
Chaltabonia	Dakshin 24 Pargana	Patharpratima	Gangapur	180	150	-	-	-	39	0.30
Phakirala	Dakshin 24 Pargana	Patharpratima	Banashyamnagar	-	300	-	-	-	24	-
Jagaddal	Dakshin 24 Pargana	Patharpratima	Shibnagar	-	100	-	-	-	8	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Uttar Gopalnagar	400	1100	-	-	-	148	0.75
Gobadia	Dakshin 24 Pargana	Patharpratima	Durga Gobindopur	-	450	-	-	-	36	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Indrapur	-	300	-	-	-	24	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Buroburir tat	-	800	-	-	-	64	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Choto Bonashyam nagar	-	100	-	-	-	8	-
Walls Creek	Dakshin 24 Pargana	Patharpratima	Dk. Shibgaung	-	150	-	-	-	12	-
Selemari	Dakshin 24 Pargana	Patharpratima	Hare Krishnapur	-	230	-	-	-	18.4	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Tukro Gopalnagar	-	500	-	-	-	40	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Chintamanipur	-	100	-	-	-	8	-

Selemari/ Gobadia	Dakshin 24 Pargana	Patharpratima	Kamdevnagar	-	120	-	-	-	9.6	-
Saptamukhi/	Dakshin 24 Pargana	Patharpratima	Durbachati	-	150	-	-	-	12	-
Jagaddal	Dakshin 24 Pargana	Patharpratima	Daspur	-	140	-	-	-	11.2	-
Jagaddal	Dakshin 24 Pargana	Patharpratima	Dk. Surendragaunge	-	120	-	-	-	9.6	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Paschim Surendranagar	20	-	-	-	1	8	0.08
Gobadia	Dakshin 24 Pargana	Patharpratima	Tookra Gopalnagar	270	230	-	-	-	40	0.22
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Gobindapur Abad	-	110	-	-	-	5	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Paschim Dwarikapur	-	400	-	-	-	5	-
Walls Creek	Dakshin 24 Pargana	Patharpratima	Khetramohanpur	-	100	-	-	-	3	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Brazaballavpur	-	200	-	-	-	9.9	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Shibnagar	-	110	-	-	-	6.5	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Choto Rakshashkali	-	185	-	-	-	7.5	-
Curzon Creek	Dakshin 24 Pargana	Patharpratima	Uttar Surendraganj	-	85	-	-	-	5.8	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Chintamonipur	-	100	-	-	-	3.1	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Buroburirtat	-	-	225	-	-	12	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Indrapur	-	-	150	-	-	20	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Harekrishnapur	-	150	-	-	-	3	-
Saptamukhi	Dakshin 24 Pargana	Patharpratima	Radhakrishna nagr	-	150	-	-	-	3	-
Chaltabonia	Dakshin 24 Pargana	Patharpratima	Banashyamnagar	-	75	-	-	-	2.4	-
Hana	Dakshin 24 Pargana	Basanti	Chunakhali janar ghat	100	200	-	-	-	29.85	3.00
Hogol	Dakshin 24 Pargana	Basanti	Sonakhali 6	70	180	-	-	-	18.34	2.00
Hogol	Dakshin 24 Pargana	Basanti	Sonakhali 6	-	200	-	-	-	10.4	-
Hogol	Dakshin 24 Pargana	Basanti	Ramchandrakhali near sluice gate	60	90	-	-	-	11.5	2.00
Bidya	Dakshin 24 Pargana	Basanti	Birinchibari Maity gheri	-	200	-	-	-	23.5	-
Bidya	Dakshin 24 Pargana	Basanti	Birinchibari near bula ghosh land	-	150	-	-	-	7.8	-
Bidya	Dakshin 24 Pargana	Basanti	Tridbnagar Balir khal bazar	-	350	-	-	-	18.15	-
Bidya	Dakshin 24 Pargana	Basanti	Parbotipur Projagheri	-	250	-	-	-	18.93	-
Matla	Dakshin 24 Pargana	Basanti	Parbotipur Rampodakona	-	300	-	-	-	10.36	-
Matla	Dakshin 24 Pargana	Basanti	Jharkhali 1 near irrigation rest shed	-	300	-	-	-	10.37	-
Matla	Dakshin 24 Pargana	Basanti	Laskarpur	-	500	-	-	-	19.21	-
Matla	Dakshin 24 Pargana	Basanti	Goranbose 3	-	400	-	-	-	19.21	-
Kartal	Dakshin 24 Pargana	Basanti	Masjidbati kamardanga	-	200	-	-	-	10.4	-
Kartal	Dakshin 24 Pargana	Basanti	Masjidbati kheyaghata	-	-	200	-	-	10.4	-
Matla	Dakshin 24 Pargana	Basanti	Goranbose 1	-	800	-	-	-	19.21	-
Matla	Dakshin 24 Pargana	Basanti	Anandabad	-	200	-	-	-	10.4	-
Hana	Dakshin 24 Pargana	Basanti	Kotrakhali	-	400	-	-	-	19.2	-
Hana	Dakshin 24 Pargana	Basanti	Monsakhali	-	200	-	-	-	10.84	-
Hana	Dakshin 24 Pargana	Basanti	Kolahazra	-	500	-	-	-	30	-

Hana	Dakshin 24 Pargana	Basanti	Hogalduri	-	450	300	-	39.5	-
Baniboyaliya	Dakshin 24 Pargana	Basanti	Kumrakhali	-	200	-	-	10.4	-
Baniboyaliya	Dakshin 24 Pargana	Basanti	Kumrakhali	-	200	-	-	10.4	-
Hogol	Dakshin 24 Pargana	Basanti	Sajnetala	-	100	-	-	5	-
Matla	Dakshin 24 Pargana	Basanti	Goranbose 2	-	300	-	-	16.09	-
Matla	Dakshin 24 Pargana	Basanti	Goranbose-VI	-	500	-	-	16.09	-
Matla	Dakshin 24 Pargana	Basanti	noliyakhali	-	100	-	-	8	-
Matla	Dakshin 24 Pargana	Basanti	Kathalberia	-	100	-	-	2.37	-
Matla	Dakshin 24 Pargana	Basanti	Sonakhali 7	-	150	-	-	8.07	-
Matla	Dakshin 24 Pargana	Basanti	Goranbose-IV	-	300	-	-	15.6	-
Hogol	Dakshin 24 Pargana	Basanti	Purandar	-	150	-	-	2.8	-
Hogol	Dakshin 24 Pargana	Basanti	Goranbose 1	-	140	-	-	1	-
Bidya	Dakshin 24 Pargana	Basanti	Jyotishpur	-	100	-	-	5.2	-
Matla	Dakshin 24 Pargana	Basanti	Shikaripara	-	-	550	-	32.3	-
Matla	Dakshin 24 Pargana	Basanti	Harbhangi Bairagipara	35	15	-	-	6.3	0.75
Matla	Dakshin 24 Pargana	Basanti	Amratala Launchghat	35	15	-	-	8.09	0.80
Hogol	Dakshin 24 Pargana	Basanti	Ramchandrakhali near bridge	-	-	100	-	5.31	-
Matla	Dakshin 24 Pargana	Basanti	Charanekhali	-	210	-	-	5	-
Matla	Dakshin 24 Pargana	Basanti	Narayantala near old pitching	-	100	-	-	2.5	-
Matla	Dakshin 24 Pargana	Basanti	Noliyakhali	-	70	-	-	2	-
Hana	Dakshin 24 Pargana	Basanti	Chuankhali near MLA fisheri	-	150	-	-	15	-
Bidya	Dakshin 24 Pargana	Basanti	Birinchibari near Narotali khal	-	250	-	-	22	-
Matla	Dakshin 24 Pargana	Basanti	Parbatipur Bidurkona	-	-	70	-	14.5	-
Matla	Dakshin 24 Pargana	Basanti	Laskarpur near Mondolgheri sluice	-	-	30	-	6	-
Matla	Dakshin 24 Pargana	Basanti	Jharkhali near Royal sundarban	-	-	-	1	12.95	-
Matla	Dakshin 24 Pargana	Canning-I	Budhakhali	-	3900	3900	-	232.14	6.28
Matla	Dakshin 24 Pargana	Canning-I	Redokhali	-	2000	2000	-	146.07	3.45
Matla	Dakshin 24 Pargana	Canning-I	Belekhali	-	700	700	-	24.51	1.87
Matla	Dakshin 24 Pargana	Canning-I	Gharkhali	-	550	550	-	17.35	1.25
Matla	Dakshin 24 Pargana	Canning-I	Nikarighata	-	30	30	-	3.88	0.25
Beledona	Dakshin 24 Pargana	Canning-I	Kripakhali	-	590	590	-	24.29	1.56
Roymongal	Dakshin 24 Pargana	Gosaba	Haritala and Petuakhali	100	810	-	-	80	2.00
Kapura	Dakshin 24 Pargana	Gosaba	Pancharamer Ghat to Naraner	488	2162	-	-	246	5.00
Sarsa	Dakshin 24 Pargana	Gosaba	5 No. near h/o Samir Biswas	70	340	-	-	38	1.00
Sarsa	Dakshin 24 Pargana	Gosaba	4 No. Baddi Para	80	410	-	-	45	1.00
Roymongal	Dakshin 24 Pargana	Gosaba	Evergreen Club and near h/o	-	1510	-	-	121	-
Sarsa	Dakshin 24 Pargana	Gosaba	Near 4 No. Jetty Ghat	25	625	-	-	54	0.80
Bagna	Dakshin 24 Pargana	Gosaba	Bhangan Ghat to Dakshin Para	-	2550	-	-	204	-

Sarsa	Dakshin 24 Pargana	Gosaba	Bhangan Ghat (Near Mayna Khal)	-	1000	-	-	-	80	-
Puinjali	Dakshin 24 Pargana	Gosaba	Near h/o Ganga Debi, Purba	-	1940	-	-	-	155	-
Rangabelia Gang	Dakshin 24 Pargana	Gosaba	Kakmari Bazar	-	400	-	-	-	32	-
Melmel	Dakshin 24 Pargana	Gosaba	Imlibari	-	300	-	-	-	24	-
Roymongal	Dakshin 24 Pargana	Gosaba	Bagna Forest Office	-	500	-	-	-	250	-
Bidya	Dakshin 24 Pargana	Gosaba	Radhanagar	-	-	100	-	-	15	-
Roymangal	Dakshin 24 Pargana	Gosaba	Kumirmari	-	-	350	-	-	250	-
Roymangal	Dakshin 24 Pargana	Gosaba	Puinjali	-	-	200	-	-	20	-
Bidya	Dakshin 24 Pargana	Gosaba	Joardar Para	-	300	-	-	-	24	-
Bidya	Dakshin 24 Pargana	Gosaba	Bidyapara and Murshider Ghat	50	330	-	-	-	34	1.00
Gomor	Dakshin 24 Pargana	Gosaba	Near Ganga Mandir to Jotirampur	450	1070	-	-	-	153	6.00
Bidya	Dakshin 24 Pargana	Gosaba	Near Sahu More to floating jetty	50	975	-	-	-	86	1.00
Bidya	Dakshin 24 Pargana	Gosaba	3 No.	-	300	-	-	-	24	-
Durgaduani	Dakshin 24 Pargana	Gosaba	Shib Mandir	-	520	-	-	-	42	-
Durgaduani	Dakshin 24 Pargana	Gosaba	Near h/o Ashutosh Adhikari	-	470	-	-	-	38	-
Durgaduani	Dakshin 24 Pargana	Gosaba	Near Adarsha Bidya Mandir	-	460	-	-	-	37	-
Durgaduani	Dakshin 24 Pargana	Gosaba	Near Haldar Para and Jetty Ghat	-	1020	-	-	-	82	-
Durgaduani and	Dakshin 24 Pargana	Gosaba	Near h/o Minoti Bar	-	1150	-	-	-	92	-
Gomor	Dakshin 24 Pargana	Gosaba	Dakshin Gheri Para and Chitol	-	1100	-	-	-	88	-
Gomor	Dakshin 24 Pargana	Gosaba	Near Nature Club	-	710	-	-	-	57	-
Bidya and Gomor	Dakshin 24 Pargana	Gosaba	5 No.	-	1200	-	-	-	96	-
Sazna	Dakshin 24 Pargana	Gosaba	Daspara, Suranjana Lodge,	-	400	-	-	-	32	-
Sazna	Dakshin 24 Pargana	Gosaba	Jetty Ghat	-	240	-	-	-	19	-
Sazna	Dakshin 24 Pargana	Gosaba	Near F.P. School	-	180	-	-	-	14	-
Gomor	Dakshin 24 Pargana	Gosaba	Sukumari	-	300	-	-	-	24	-
Bidya	Dakshin 24 Pargana	Gosaba	9 No. Kheya Ghat	200	900	-	-	-	102	3.00
Bidya	Dakshin 24 Pargana	Gosaba	Jetty Ghat	-	500	-	-	-	40	-
Hana	Dakshin 24 Pargana	Gosaba	Kheyaghat to D. Mukharjee	-	210	-	-	-	17	-
Bidya	Dakshin 24 Pargana	Gosaba	Balahauni Para to Swashanghat	-	450	-	-	-	36	-
Bidya	Dakshin 24 Pargana	Gosaba	Dugdugi Bazar to School.	-	600	-	-	-	48	-
Hana	Dakshin 24 Pargana	Gosaba	Jele Para, Kamarpara,	-	700	-	-	-	56	-
Bidya	Dakshin 24 Pargana	Gosaba	Keripara	-	450	-	-	-	36	-
Bidya	Dakshin 24 Pargana	Gosaba	Adibasipara	-	350	-	-	-	28	-
Bidya	Dakshin 24 Pargana	Gosaba	Kamalesh Moldal's House	-	1200	-	-	-	96	-
Bidya	Dakshin 24 Pargana	Gosaba	Routhpara	-	450	-	-	-	36	-
Bidya	Dakshin 24 Pargana	Gosaba	Mathurakhanda	-	350	850	-	-	105	-
Gomor	Dakshin 24 Pargana	Gosaba	Sater Kona	-	-	500	-	-	95	-
Bidya	Dakshin 24 Pargana	Gosaba	Gosaba	-	-	300	-	-	40	-

Bidya	Dakshin 24 Pargana	Gosaba	Gosaba 3 No.	-	-	300	-	45	-
Kartal	Dakshin 24 Pargana	Gosaba	Chandipur	-	-	150	-	10	-
Gomor	Dakshin 24 Pargana	Gosaba	Bali 2	-	-	310	-	140	-
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Madhya Gurguria	32	100	-	-	4.7	0.50
Gurakhal	Dakshin 24 Pargana	Kultali	Mouza - Madhya Gurguria	-	550	-	-	16.5	0.00
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Bhubaneswari	60	600	-	-	25	1.50
Gurakhal	Dakshin 24 Pargana	Kultali	Mouza - Nagenabad	60	300	-	-	14	0.50
Olian	Dakshin 24 Pargana	Kultali	Mouza - Maipith	-	190	-	-	4.8	0.00
Olian	Dakshin 24 Pargana	Kultali	Mouza - Binodpur	-	300	-	-	5	0.00
Gurakhal	Dakshin 24 Pargana	Kultali	Mouza - Debipur	-	300	-	-	5.2	0.00
Gurakhal	Dakshin 24 Pargana	Kultali	Mouza - Madhya Gurguria	-	700	-	-	13	0.00
Gurakhal	Dakshin 24 Pargana	Kultali	Mouza - Purba Gurguria	-	200	-	-	3	0.00
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Baikunthapur	-	400	-	-	7	0.00
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Debipur	-	300	-	-	4	0.00
Moni	Dakshin 24 Pargana	Joynagar-II	Mouza- Nolgora	-	400	-	-	7	0.00
Thakuran	Dakshin 24 Pargana	Joynagar-II	Mouza- Chuprijhora	-	200	-	-	2	0.00
Matla	Dakshin 24 Pargana	Kultali	Mouza- Dongajhora	-	-	2080	-	57.43	0.00
Beledona	Dakshin 24 Pargana	Kultali	Mouza- Dongajhora	-	2000	-	-	37.02	0.00
Beledona	Dakshin 24 Pargana	Kultali	Mouza- Kailashnagar	-	500	-	-	2.85	-
Matla	Dakshin 24 Pargana	Kultali	Mouza - Gopalganj	130	750	-	-	13.96	1.50
Matla	Dakshin 24 Pargana	Kultali	Mouza - Gopalganj	-	250	-	-	5.29	0.00
Matla	Dakshin 24 Pargana	Kultali	Mouza - Kaikhali	750	750	-	-	14.72	0.80
Matla	Dakshin 24 Pargana	Kultali	Mouza - Kaikhali	-	200	-	-	3.47	1.50
Matla	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	1000	820	-	-	43.51	1.50
Matla	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	320	500	-	-	19	0.75
Matla	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	820	1000	-	-	43.61	1.50
Matla	Dakshin 24 Pargana	Kultali	Mouza - Kaikhali	-	100	100	-	4.64	0.00
Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Madhusudanpur	-	120	-	-	2.03	0.00
Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Kantamari	-	250	-	-	4.22	0.00
Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Kantamari	-	60	60	-	2.9	0.00
Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	115	-	-	1.94	0.00
Chituri	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	200	-	-	3.42	0.50
Chituri	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	175	-	-	2.92	0.50
Petkulchand	Dakshin 24 Pargana	Kultali	Mouza - Dakshin Durgapur	-	200	-	-	3.49	0.50
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Shyamnagar	-	200	-	-	3.36	0.50
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Madhabpur	-	180	-	-	2.99	0.00
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Shyamnagar	-	300	-	-	5.06	0.00
Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	60	60	-	2.81	0.00

Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	45	45	-	9.45	0.00
Matla	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	650	650	-	78.59	0.00
Petkulchand	Dakshin 24 Pargana	Kultali	Mouza - Dakshin Durgapur	-	330	-	-	5.31	0.00
Thakuran	Dakshin 24 Pargana	Kultali	Mouza - Shyamnagar	-	110	-	-	2.45	0.00
Nabipukur	Dakshin 24 Pargana	Kultali	Mouza - Deulbari Debipur	-	160	-	-	2.89	0.00
Matla, Thakuran,	Dakshin 24 Pargana	Kultali	Mouza - Dakshin Garankati,	-	-	-	4	3.54	0.00
Mridangabhangha	Dakshin 24 Pargana	Patharpratima	Indranarayanpur	-	1000	-	-	30	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Uttar Mahendrapur	-	400	-	-	12	-
Pakhiali	Dakshin 24 Pargana	Patharpratima	Kamdevpur	-	220	-	-	6.6	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Parbotipur	-	200	-	-	6	-
Jagddal	Dakshin 24 Pargana	Patharpratima	Sridharnagar	-	700	-	-	21	-
Mridangabhangha	Dakshin 24 Pargana	Patharpratima	Kedarpur	-	400	-	-	12	-
Nakchara	Dakshin 24 Pargana	Patharpratima	Purbo Dwarikapur	-	300	-	-	9	-
Athorogachi Khal	Dakshin 24 Pargana	Patharpratima	Bishnupur	-	300	-	-	9	-
Sibua	Dakshin 24 Pargana	Patharpratima	Achintanagar	-	100	-	-	3	-
Mridangabhangha	Dakshin 24 Pargana	Patharpratima	Laxmipur	-	100	-	-	3	-
Sibua	Dakshin 24 Pargana	Patharpratima	Purba Sripatinagar	-	700	-	-	21	-
Thakuran	Dakshin 24 Pargana	Patharpratima	Paschim Sripatinagar	-	600	-	-	18	-
Mridangabhangha	Dakshin 24 Pargana	Patharpratima	Indranarayanpur	-	140	-	-	4.2	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Uttar Mahendrapur	-	120	-	-	3.6	-
Mridangabhangha	Dakshin 24 Pargana	Patharpratima	Mahespur	-	10	-	-	0.3	-
Gobadia	Dakshin 24 Pargana	Patharpratima	Parbotipur	-	60	-	-	1.8	-
Barchara	Dakshin 24 Pargana	Patharpratima	Bharatala G.P + Mouza -	1100	-	-	-	69	4.50
Kalua	Dakshin 24 Pargana	Patharpratima	Abadgangadhpur	15	25	-	-	1	0.15
Nakchara	Dakshin 24 Pargana	Patharpratima	Near Kuemari Bazar	300	-	-	-	22	2.20
Jagaddal	Dakshin 24 Pargana	Patharpratima	Bijoy Ranjiter Ghut G.P + Mouza	71	-	-	-	Repaired by local	2.50
Thakuran	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur/ Domkal	-	1900	-	-	42.76	0.55
Pakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur/ Domkal	50	-	-	-	2.87	0.10
Thakuran	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur/ Purba Sridharpur	-	1000	-	-	30	0.50
Nakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Mahabatnagar	-	900	-	-	27	-
Mridangabhangha	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Nandakumarpur	60	540	-	-	17.25	0.15
Radighi and Chatua	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Kumrapara/ Kumrapara	80	2620	-	-	35.42	0.15
Chatua	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur	40	-	-	-	2.8	0.30
Chatua	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Narayanpur	200	200	-	-	14.5	0.30
Radighi	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Kankandighi/ Kankandighi	150	750	-	-	28.88	0.38
Pakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur/ Nagendrapur	-	320	-	-	9.6	0.16
Chatua	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur/ Nagendrapur	-	230	-	-	6.79	-
Thakuran	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Kankandighi/ Purba Jatar Deul	-	350	-	-	10.5	-

Name of River / Channel	District	Block / PS	Location of Damage (GP / Village / Mouza)	Nature and extent of Damages					Inundated / water logged Area (Sq. Km.)
				Breach (m)	Slip/ Subsidence /Erosion (m)	Protective works (m)	No. of damaged Structures (Sluices / Bridge)	Cost of Damagees (Rs. In Lakhs)	
Sutarbag	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Dighirpar Bakultala/ Dighirpar	-	300	-	-	4.87	0.20
Mridangabhangha	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Joykrishnapur	-	600	-	-	14.3	-
Nakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Kailashpur	500	525	-	-	37.4	1.10
Mridangabhangha	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Kailashpur	-	240	-	-	2.5	-
Mridangabhangha	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Mahabatnagar	-	920	-	-	22.16	-
Chatua	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Narendrapur	-	300	-	-	3.95	-
Pakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Madhusudan	-	300	-	-	3.84	-
Raidighi	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Raidighi/ Raidighi Abad	30	200	-	-	4.52	0.05
Pakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Jagannath Chak	-	300	-	-	2.82	-
Pakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Mahabatnagar	-	30	-	-	1.71	-
Pakchara	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Narendrapur	-	270	-	-	2.27	-
Moni	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nalgora	-	90	-	-	4.95	-
Moni	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Radhakantapur/ Radhakantapur	-	-	-	1	4.85	-
Moni	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nandakumarpur/ Nandakumarpur	-	-	-	4	3.38	-
Moni	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Dighirpar Bakultala/ Kumrapara	-	-	-	8	9.04	-
Moni	Dakshin 24 Pargana	Mathurapur- II/ Raidighi	Nagendrapur/ Kankandighi	-	-	-	3	3.89	-
Sutarbag	Dakshin 24 Pargana	Patharpratima/ Dhola	Dakshin Roypur/ Dakshin Roypur	-	460	-	-	5.14	-
Hooghly	Dakshin 24 Pargana	Block-Kulpi	Gayenpara under Hanra Mouza	120	-	-	-	150	2.00
Bidyadhari	Dakshin 24 Pargana	Block- Bhangore-II	G.P.- Polerhat-II	-	125	-	-	4.76	-
Bidyadhari	Dakshin 24 Pargana	Block- Bhangore-II	G.P.- Polerhat-II	-	110	-	-	4.76	-
Bidyadhari	Dakshin 24 Pargana	Block- Bhangore-II	G.P.- Polerhat-II	-	110	-	-	4.77	-
Total :	No. of Dist. = 17	No. blocks = 175	No. of locations = 1035	15002	263625	62782	198	₹ 55,014 Lakh	558.91

Annexure XII

<u>CENTRAL FLOOD CONTROL ROOM & NODAL OFFICERS OF I. & W. DEPARTMENT</u>						
SI. No	DISTRICT	STATION / PLACE	CONTACT DETAILS OF NODAL / COORDINATING OFFICERS	CONTACT DETAILS		
				OFFICE No. / Fax	E-mail ID	
1	KOLKATA	Central Flood Control Room (CFCR), Gr. Floor, Jalasampad Bhawan, Salt Lake, Kolkata	Director, Advance Planning, Project Evaluation & Monitoring Cell (APPEMC)	(033) 2337-0281 FAX: (033) 2337-0287 24-Hours Toll Free Help Line : 1800-345-0117 Land Line : 033-2321-8341 FAX : 033-2321-5604 Cell Phone: 89008-90603 (CUG) & 94325-84007 (BSNL)	CFCR email id : cfcriwdwb@gmail.com APPEMC email id : advplniwdwb@gmail.com Web Site : www.wbiwd.gov.in	
			EE, Mechanical Electrical Division	(033) 2321 5609		
			EE, Metropolitan Drainage Mechanical Division	(033) 2334 5768		

<u>DISTRICT FLOOD CONTROL ROOMS & NODAL OFFICERS OF I. & W. DEPARTMENT</u>					
SI. No	DISTRICT	STATION / PLACE	CONTACT DETAILS OF NODAL / COORDINATING OFFICERS	CONTACT DETAILS	
				OFFICE No. / Fax	E-mail ID
2	Jalpaiguri	Regional Flood Flood Control Room (RFCR), Jalpaiguri	EE, Jalpaiguri Irrigation Division, Club Road, Jalpaiguri.	(03561) 230249 Control Room (03561) 230153 FAX: (03561) 230786 Toll Free Help Line (1800-345-3255)	eejidvn@gmail.com
3	North 24-Parganas	Basirhat	EE, Basirhat Irrigation Division, Dhaltitha, Basirhat	(03217) 265-258	basirhatirrigation@gmail.com
		Barasat	Executive Engineer, Bidyadhari Drainage Division, Taki Road, Barasat	(033) 2562-4520 FAX: 2562-4520	bidyadharidrainage@gmail.com
4	South 24-Paganas	Joy Nagar	EE-I , Joynagar Irrigation Division	(033) 2433-2887	iwdeejid@gmail.com
			EE-II , Joynagar Irrigation Division		ee2jid.iwd@gmail.com
		Kakdwip	EE, Kakdwip Irrigation Division, Kakdwip	(03210) 255122	eekid@gmail.com
5	Howrah	Uluberia	EE I, Lower Damodar Construction Division	(033) 2661 0311	ee1ldcd@gmail.com
			EE II, Lower Damodar Construction Division	(033) 2661 0090	eeiidcddivision@gmail.com
6	Hooghly	Singur	EE I, Lower Damodar Irrigation Division, Singur	(033) 2630-0170	eeldi2014@gmail.com
			EE II, Lower Damodar Irrigation Division, Singur	(033) 2630-2260	ee2ldid@gmail.com
7	Purba Bardhaman	Burdwan	EE I, Damodar Canal Division, Burdwan	(0342) 2662496 FAX: (0342) 2550166 Control Room (0342) 2645672	eedcdiwdwb@gmail.com
			EE II, Damodar Canal Division, Burdwan		eeiidcddivision@gmail.com
8	Paschim Bardhaman	Durgapur	EE, Damodar Head Works Division, Durgapur	(0343) 2555640 (0343) 2002012 (Barrage)	dhwdiwdwb@gmail.com
		Asansol	EE, Asansol Irrigation Division, Asansol	New Office	eeasansoldivisioniwd@gmail.com

SI.	DISTRICT	STATION / PLACE	CONTACT DETAILS OF NODAL / COORDINATING OFFICERS	CONTACT DETAILS	
				OFFICE No. / Fax	E-mail ID
9	Bankura	Bankura	EE, Bankura Irrigation Division, Bankura	(03242) 254934	ee.bankura.irrigation@gmail.com
10		Khatra	EE, Kangsabati Canal Division No.II, Khatra	(03243) 255236	k.c.div.no.ii@gmail.com
11	Jhargram	Jhargram	EE, Jhargram Flood Management & Planning Division, Jhargram	New Office	ejfmpd2018@gmail.com
12	Paschim Medinipur	Midnapore	EE, West Medinipur Division, Midnapore	(03222) 275373	eewmid2012@gmail.com
13	Purba Medinipur	Tamluk	EE, East Medinipur Division, Tamluk	(03228) 266889	eemd.wbiwd@gmail.com
		Contai	EE, Contai Irrigation Division, Contai	(03220) 255162 <u>FAX:</u> (03220) 256436	cdivision.2012@gmail.com
14	Birbhum	Suri	EE, Mayurakshi Hd. Qtrs. Division, Suri	(03462) 255229	eemhqd@gmail.com
		Bolpur	EE, Mayurakshi South Canals Division, Shyambati, Bolpur	(03463) 262256	eemsdivision@gmail.com
		Rampurhat	EE, Mayurakshi North Canals Division, Rampurhat	(03461) 255039	eemncd@gmail.com
15	Nadia	Krishnanagar	EE, Nadia Irrigation Division, Krishnanagar	(03472) 252451	ennidiwd@gmail.com
16	Murshidabad	Berhampore	EE, Berhampore Irrigation Division, Berhampore	(03482) 250645	officebidee@gmail.com
17	Malda	Regional Flood Flood Control Room (RFCR), Malda	EE, Malda Irrigation Division, Green Park, Malda.	(03512) 252395 <u>FAX:</u> (03512) 254350 <u>Control Room:</u> (03512) 253939	maldairrigation@gmail.com
18	Uttar Dinajpur	Raigunj	EE, North Dinajpur Irrigation Division	(03523) 252008	eendid.rqj@gmail.com
19	Dakshin Dinajpur	Balurghat	EE, South Dinajpur Irrigation Division	(03522) 255113	eesdid@gmail.com
20	Darjeeling	Siliguri	EE, Siliguri Irrigation Division, Mahanandapara, Siliguri	(0353) 2431842	executiveengineersid@gmail.com
21	Coochbehar	Coochbehar	EE, Coochbehar Irrigation Division, Coochbehar	(03582) 228305 <u>Control Room</u> (03582) 229114	ee.cobidvn@rediffmail.com
22	Alipurduar	Alipurduar	EE, Alipurduar Irrigation Division, Alipurduar	03564-255305 <u>Control Room</u> (03564) 274198	eeapdid@gmail.com
23	Jalpaiguri (under Teesta Barrage Project)	Gajoldoba	Teesta Barrage Control Room	9064161095	eetbd2012@gmail.com
		Fulbari	Mahananda Barrage Control Room	(03532) 005612	ee.mbdinv@gmail.com

*EE : Executive Engineer

INDEX MAP OF FLOOD AFFECTED AREAS (2000-2017) IN WEST BENGAL

