

185

**GOVERNMENT OF WEST BENGAL
IRRIGATION & WATERWAYS DIRECTORATE**



वसुधैव कुटुम्बकम्

ANNUAL FLOOD REPORT – 2009.

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④ ^{decades} or century ago (for Particular
or ^{embankments})
⑤ becomes

① without any
② nine in 11 districts
③ severe draught, ^{forming}
Annual Flood Report 2009
or trouble ^{mainly} in South Bengal
districts.

PREFACE

The State of West Bengal is the lowermost riparian State in the Ganga Basin and most of the rivers in the State originate from outside the state boundary and are of inter-state/international category. The State is quite often ravaged by destructive flood, even when there is no appreciable rainfall within the geographical limits of the State. Along with flood, various allied problems like bank erosion, drainage congestion, cyclonic disaster accentuate the flood situation. The State with about 43% of its geographical area being flood prone, happens to be one of the prime flood prone States in the country.

The flood, a water related disaster in the state of West Bengal has been an annual feature. Some parts of the state are victims of onslaughts of flood each year resulting severe loss to standing crops, cattle and human properties. The state has all possible facets of flood, drainage, bank erosion, cyclonic storm ravages and associated problems. It has been noticed that the furies due to flood have increased during the last two decades. In the State only eight years could be identified as flood free years since 1960 when only less than 500 sq.kms of area were inundated. After last 1978 major flood, the State suffered consecutively in 1998, 1999 and 2000. In terms of loss of life and property the 2000 flood was almost comparable to 1978 flood.

This year this State witnessed one of the most severe flood damage occurred in the Sundarban area by the effect of cyclone AILA. Other than that the State is relatively free from flood damages during the year 2009. in N. Bengal received moderate to high intensity of rainfall during the year 2009.

There is 10401 K.M of total length of embankment (out of which 1326.08 K.M Ex - Zamindary Embankment) is maintained by this department in the state of West Bengal. Till date work for protection of total 25380 sq K.M area from flood has been undertaken by this department. Length of 280 K.M coastal belt of the State (including Creeks) and 65.4 K.M. of sea-dyke length (Digha) and 7.9 K.M. length of Sea wall is maintained by this department in the state.

Embankments in various districts of the State in general and Sundarban areas in particular are used as communication link, particularly during periods of calamity for safe passage of people and carrying relief materials. Disruption of such communication links leads livelihood activities almost to a grinding halt. Moreover, embankments, constructed decades and century ago are functioning as lifeline to the people of Sundarban since those prevent entry of diurnal high tidal water into the countryside where average ground level is substantially lower than the normal amplitude of high tide. Due to breach as well as washout of embankments major portion of the area was disconnected from basic facilities of life.

Many factors such as intensity and duration of rainfall, sedimentation in river bed, natural or manmade obstruction etc. play a role in the occurrence of flood. Study of these factors and evaluation of flood hazards every year for a given basin/sub-basin are indispensable for evolution of various flood management measures. Accordingly Irrigation & Waterways Directorate, at the end of each flood season, prepare annual flood report comprising rainfall pattern in the basin/sub-basin, rainfall in the districts, reservoir condition and major flood events of the year

① in the North and South was to partly higher in the South was to the plains in the rest of the state & areas.

② ghazaland

Annual Flood Report 2009

1. INTRODUCTION.

③ with optimum

The state West Bengal crowned by the mighty snow-white Himalayas in the North and frothy sea on the South is a combination of land varying from high regions to the plains. The state is beset with extensive network of rivers, their tributaries, rivulets, jhoras, canals, tanks, beels and low lying pockets of water bodies. With the Tropic of Cancer running across it, the state is situated between $21^{\circ}31'$ & $27^{\circ}13'14''$ North Latitudes and $85^{\circ}45'20''$ & $89^{\circ}53'$ East Longitudes. The geographical area of the state is about 88,752 sq.km. with a population density of 767 per sq.km. according to 2001 census.

West Bengal, a part of Bengal Delta, has a long recorded history of flood. It is because the landmass of the State was formed by the Ganga-Padma system of rivers through the delta building process of which flood is an adjunct being the main carrier of sediments, the bulk of fluvial deposit, in huge volumes. At present 42.3% of total area of the State is susceptible to flood spread over 110 blocks in 18 districts. The highest affected area of flood as recorded in 1978 is about 30,607sq.km. and in 2000 about 50%.

Ganges enters West Bengal near Rajmahal and then flows in a south-easterly direction. It divides into two near north of Dhulian in Murshidabad district. One branch enters Bangladesh as the Padma while the other flows through West Bengal as the Bhagirathi River and Hooghly River in a southern direction. The Bhagirathi is the main river in West Bengal which flows past some of the important cities like Murshidabad, Baharampur, Nabadwip, Chinsura, Chandannagar, Srirampur, Howrah, Kolkata, Diamond Harbour and Haldia. It empties its water into Bay of Bengal near Sagar Island in the South 24 Parganas.

The Mayurakshi, Ajay, Damodar, Kangsabati, Rupnarayan and their tributaries which rise in the Western plateau and high lands flow eastwards through the different districts of West Bengal and joins the Bhagirathi on the right bank. The Mayurakshi, which is fed by tributaries Brahmani, Dwarka, Bakreshwar and Kopai joins the Bhagirathi near Kalna, the Ajay, which rises in the hills of Bihar, joined by the Kunur, flows down the plateau fringe, marking the boundary between Bardhaman and Birbhum districts joins it near Katwa and Damodar, with its small meandering distributaries, small streams, Khari, Banka and Behula joins the Bhagirathi near Uluberia. The Damodar is known as the sorrow of Bengal, is now controlled by making the Damodar Valley Project. The Dwarakeswar and Shilabati rivers join to form Rupnarayan and the Kangsabati and Keleghai rivers join to form the Haldi. The Rupnarayan and Haldi fall into the Bhagirathi in the Murshidabad district. The Subarnarekha river after flowing for a short distance in West Bengal re enters into Orissa. These rivers carry with them plenty of water, thus keeping the Bhagirathi river submerged with water throughout the year. The rivers along with water carry silt and sand eroded from the western plateaus and deposits them in the Bhagirathi and the rivers themselves. This silting is causing great inconvenience for the Kolkata Port and often result flooding in the years of heavy rain.

The distributaries of the Padma River like Bhairab, Jalangi, Mathabhanga River and their tributaries enters West Bengal and joins the Bhagirathi on its left bank. [4] The Bhairab and the Jalangi meet and their joined waters known as Jalangi falls into Bhagirathi. The Mathabhanga divides into branches namely; Churni and Ichhamati, while the Churni meets the Bhagirathi while the other flows southwards and joins the Kalindi.

The Sunderbans region is covered by numerous estuaries and streams, mainly distributaries of main rivers. The rivers are interconnected and are fed by tidal waters. The major rivers of the area are Hoogly, Matla, Gosaba, Saptamukhi, Haribhanga, Piyali, Thakuran/ Jamira, Raimangal, Kalindi and Ichhamati.

The Teesta flows cutting deep gorges from north to south in the mountainous Darjeeling district, it enters the plains at Sevoke and flows in a mighty stream on straight line towards the south east until it pours its waters into the Brahmaputra in Bangladesh. Torsa, Jaldhaka, Kaljani, Raidak, Sankosh and Mahananda rivers are in the northern hilly region which rise in the Himalayas and flow in a southerly direction through the districts of Darjeeling, Jalpaiguri, Cooch Behar and North and South Dinajpur and enters Bangladesh. As most of the rivers are snow fed, so most of the rivers are perennial in nature and often floods during the rainy season. The entire region is made up of sand, gravel and pebbles laid down by these rivers. The Mahananda rises from the Dow Hills forest, near the town of Darjeeling and are fed by similar small rivers like, Mahanadi, Balason, and Machi and runs in a zig-zag way through the district of Malda and joins the Padma in Bangladesh. In the central region, the main river is the Mahananda. The Tangon and Punarbhabha, and Atrai arises in the plains, while the former two joins together and flows into Mahanadi, Atrai flows into the Padma.

Classification of areas.

1.	Geographical Area	88,752 sq.km.
2.	Area under Forest	11,880 sq.km.
3.	Total Flood Prone Area	37,660 sq.km.
4.	Area already protected	22,005 sq.km.

1.1 RIVER BASINS

The state can be demarcated into three distinct drainage basins coming under the Ganga, Brahmaputra and Subarnarekha system respectively. These three main river basins can in turn be divided into Sub-basins having individual catchment of their own. The area-wise distribution of the above main basins in the state are as under

1.	Brahmaputra Basin	11,860 sq.km.
2.	Ganga Basin including Sundarban Area	74,732 sq.km.
3.	Subarnarekha Basin	2,160 sq.km.

1.2 RIVER SYSTEM

1.2.1 Brahmaputra Basin Drainage System.

The rainfall in the northern region of the state is generally high. The ground slope is steep enough particularly in the Sub-Himalayan regions of the northern districts. Except Darjeeling, all the areas belong to Brahmaputra Basin. This system consists of a total area of 11,860 sq.km. nearly 14% 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, Mansai, Jaldhaka etc. All these rivers originate from the Himalayas in Bhutan/Sikkim 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 rivers feeding the river Brahmaputra have number of tributaries as under –

Sl.No.	River Basin	Catchment area in sq.km.	Tributaries
1.	Sankosh	172	Chiklajhore
2.	Raidak	807	Raidak-I, Raidak-II, Turturi
3.	Torsa	3419	Kaljani, Sil-Torsa, Char-Torsa Dolong, Sanjai, Ghargharia, Garam, Diana, Pana, Jainti, Gabur-Basra
4.	Jaldhaka	3746	Mujnai, Murti, Diana, Sutanga, Dolong, Dharala, Ghatia, Kumlai, Gilandi, Dudhya
5.	Teesta	3716	Great Rangeet, Ramam, Rangpoo, Mechi, Leesh, Ghish, Chel, Mal, Neora, Karala.

BRIEF DESCRIPTION OF RIVERS UNDER BRAHMAPUTRA BASIN

(A) SANKOSH

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.

(B) RAIDAK.

It originates in Mt. Akungphu at an altitude of 6400 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.

(C) Torsa

The river Torsa originates in Chumbi Valley of southern Tibet at an altitude of 7065 M. It flows through Tibet, Bhutan, West Bengal and Bangladesh. Below Hasimara bridge on NH-31, it bifurcates into two channels viz. Sil-Torsa and Char-Torsa. They reunite at Patla Khowa forest. The river passes by the Coochbehar town and is joined by river Kaljani and Raidak-I. The combined flow outfalls into Brahmaputra near Nageswari at Rangpur in Bangladesh.

(D) JALDHAKA

The river Jaldhaka has its origin at Bitang Lake in Sikkim at an altitude of 4400 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.

(E) TEESTA

Teesta – the mighty river of North Bengal originates in the glaciers of North Sikkim at an altitude of 6400 M and is formed by the union of two streams viz. Lachen and Lachung at Chungthung in Sikkim. It enters West Bengal at Rangpoo and upto Mechi, it forms the boundary between West Bengal and Sikkim. Two of its tributaries-Great Rangit and Rammam also serve as the natural boundary between the two states. The river finally outfalls into Brahmaputra in Rangpur district of Bangladesh.

1.2.2 GANGA BASIN

The two holy rivers – Bhagirathi and Alakananda originating from the glaciers of the Himalayas at an altitude of 7000 M. join at Dev prayag and the combined stream is known as the Ganga. It emerges into the plains at Rishikesh in Uttaranchal. After flowing exclusively through Uttaranchal and Uttar Pradesh it receives the flow of Yamuna, the largest tributary at Allahabad. 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. and then it enters West Bengal.

As it enters West Bengal, the river swings round the Rajmahal hill range and then starts flowing almost due south. The river then bifurcates into two arms about 40 km. below Farakka. The left arm called the Padma flows eastwards into Bangladesh while the right arm called

Bhagirathi continues to flow south through West Bengal. The stretch of the river after Nabadwip is called Hooghly and ultimately outfalls into the Bay of Bengal near Sagar Island.

The Central, Southern and the South-Western parts of the State of West Bengal constitute the Ganga Basin.

The total length of the river Ganga from its point of origin to the point where it falls into sea is about 2575 km. (measured along Bhagirathi and the Hooghly), of which 1450 km. lies in Uttaranchal 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 74,732 sq.km. within the state of West Bengal. The catchment areas of different rivers within this system in the state of West Bengal are as under

Sl.No.	Name of River Sub-Basin	Catchment Area in Sq.km.
1	2	3
(a)	Mahananda	9,640
(b)	Punarbhaba	730
(c)	Atrai	910
(d)	Pagla-Bansloi	730
(e)	Dwaraka-Bhrahmani	2,500
(f)	Bhagirathi-Hooghly	1,170
(g)	Jalangi	5,344
(h)	Mayurakshi	2,720
(i)	Ajoy	2,490
(j)	Khari-Gangur-Ghea	4,460
(k)	Churni	800
(l)	Damodar	5,250
(m)	Dwarkeswar	4,430
(n)	24-Parganas(South & North) and Kolkata Port Drainage Basin	4,619
(o)	Kangsabati	8,369
(p)	Silabati	3,952
(q)	Rupnarayan	2,548
(r)	Pichabani	820
(s)	Rasulpur	1,130
(t)	Haldi	980
(u)	Tidal zone (Sundarban Area)	11,320

The different tributaries of these rivers are listed below –

Sl.No.	Name of River	Tributaries
1	2	3
1.	Mahananda	Mechi, Balason, Dauk, Nagar, Kulik, Gamari,

		Chiramati, Tangon, Kalindri
2.	Punarbhaba	Punarbhaba
3.	Atrai	Atrai
4.	Pagla	Pagla, Bansloi, Bagmari
5.	Brahmoni	Brahmoni, Dwarka
6.	Bhagirathi	Bhagirathi, Hooghly
7.	Jalangi	Jalangi, Silamari, Bhairab, Suti
8.	Mayurakshi	Mayurakshi, Babla, Siddheswari, Kuiya, Kopai, Bakreswar, Sal, Monikornika, Daoki, Kana, Mor, Gambhira.
9.	Ajoy	Ajoy, Hinglow, Kunoor, Pathro, Jayanti,
10.	Khari-Gangur-Ghea	Khari, Brahmoni, Banka, Bangour, Ghea, Behula, Kana
11.	Churni	Churni
12.	Damodar	Damodar, Barakar, Sali.
13.	Dwarkeswar	Ganddheswari, Dwarkeswar, Arkasha, Berai.
14.	Rupnarayan	Mundeswari, Dwarkeswar, Berai, Tarjuli, Sankari, Silabati, Joypanda, Kubai, Parag, Kanki, Ganddheswari, Damodar
15.	Haldi	Haldi, Banki, Kangsabati, Kumari, Bhairab, Tarafeni, Kaliaghai, Bagchai, Chandra, Kapaleswari.
16.	Rasulpur	Rasulpur, Pichabani.
17.	Tidal Rivers	Tolly's Nullah, Keorapukur, Ichamati, Raimongal, Kultigong, Jamuna, Kalindi, Haroa, Bhanga, Gosaba, Metia, Piali, Thakuran, Raidighi, Saptamukhi, Buriganga, Matla, Dansa, Kalagachi, Bidyadhari, etc.

BRIEF NOTES ON THE SUB-BASINS

1. MAHANANDA

The river Mahananda originates from Ghoom near Darjeeling town in the district of Darjeeling. The Mahananda river system lies between latitude 25°15' N to 26°15' N and longitude 87°45' E to 88°15' E. 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 North-Western side at Godogarighat just downstream of the point where Ganga leaves the boundary of West Bengal.

2. ATRAI-PUNARBHABA

Some rivers like Saha, Neem, Talma, Chaoai, Panga originating from the high lands in districts of Jalpaiguri, meet together afterwards. This combined stream assumes the name Karotowa. It then enters Bangladesh by the name Atrai. The river Atrai then bifurcates into two channels namely Dheepa and Atrai. The Western Channel – Atrai re-enters 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 Brahmaputra.

The Dheepa on the other hand taking a South – Westernly course enters Gangarampur P.S. in South Dinajpur district assuming the name Punarbhaba. Covering a length of about 40 km. in the district it touches the eastern boundary of Maldah district and finally enters Bangladesh. Further down, Punarbhaba meets the river Mahananda in Bangladesh.

3. NAGAR-KULICK, GAMARI-CHIRAMATI, TANGON, KALINDRI

All these rivers flow through the districts Malda and North Dinajpur. In course of their flow, somewhere they form the boundary either between West Bengal and Bihar or between West Bengal and Bangladesh. These rivers ultimately outfall into the river Mahananda.

Nagar, originating in Bangladesh flows along the boundary of West Bengal and taking a Southeasternly course, receives a spill channel of Mahananda and is joined by Kullick, which has also its origin in Bangladesh. Gamari and Chiramati are two small rivers that flow through North-Dinajpur district before they are united. This combined stream 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.

River Kalindri originating in North Bihar flows through the plain of Purnia district. It enters West Bengal in the Malda district and outfalls into Mahananda.

4. PAGLA-BANSLOI-BRAHMANI

These rivers originate from the Rajmahal hills in the district of Bihar. Flowing easternly across Birbhum district, they entered Murshidabad district as the tributaries of the river Bhagirathi.

5. JALANGI-BHAIRAB

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 rain, when it receives water from Padma. The river ends its journey by finally outfalling into the river Hooghly near Nabadwip town in Nadia district in West Bengal.

The river Bhairab starts its journey from the river Ganga in P.S. Lalbag of Murshidabad district. It is now almost a dead channel but during rainy season it receives water from Padma.

6. ICHAMATI-CHURNI

The river Mathabhangra originates from the mouth of the Jalangi of Padma. It is not an important river in this stage, as it flows mainly through Bangladesh. It flows only a few kilometers within the district of Nadia. At this stage, the river bifurcates into two streams – the eastern course runs a few kilometres through the districts in a south-east directions to meet Bhagirathi by the name Churni and the other course flows by the name Ichamati. Ichamati gets a little supply from Padma and thrives on wash out by tidal flows.

7. BHAGIRATHI-HOOGHLY

The Ganga Brahmaputra Meghna river system constitutes one of the largest river systems of the world in terms of its water resources. The river Ganga originating in the Himalayas in India, drains a vast area. Near its deltaic head at Farakka it divides into two channels, the Bhagirathi-Hooghly and the Padma. The Bhagirathi-Hooghly flows through West Bengal and outfalls in Bay of Bengal and the Padma crosses over into Bangladesh and joins the Brahmaputra at Goalundo.

The river Bhagirathi divides the Murshidabad district into two part. It receives three right bank tributaries namely the Bagmari-Pagla, the Mayurakshi and the Ajoy. It receives the Jalangi just upstream of Nabadwip town from the left. After its confluence with the Jalangi, the Bhagirathi is known as the Hooghly.

The Bhagirathi-Hooghly is the main river in the state and is the main drainage artery for the southern districts draining almost the entire area. Before 12th century, the Ganga had its main course down Bhagirathi-Hooghly. Subsequently, the main flow was pushed to the east through the present course of Padma. The flow of Bhagirathi increases downstream due to the run off and outflows receives from a number of eastern and western tributaries. It also form the boundary between 24-Parganas and Hooghly districts.

8. MAYURAKSHI-BABLA

Mayurakshi originates from the high lands of Santhal Parganas. It is the main river of Birbhum district. Several spill channels – the Manikornika, Kana Mor, Gambhira etc. take off

from the Mayurakshi in its lower reaches. All these rivers flow into the lower pocket of Hikal Beel in the district of Murshidabad. From the Beel, the river Babla starts its journey finally draining into the river Bhagirathi. The drainage and flood level in the Hikal Beel is considerably influenced by the level ruling in the Bhagirathi.

9. AJOY

The river Ajoy originates from the hills near Deoghar in Jharkhand. The Principal tributaries of the river are - Hinglow, Kunoor, Pathro and Jayanti. The floods of this river are flashy and of short duration. There are some pockets in the Ajoy-Kunoor catchment which suffer from frequent inundation. Large areas of Burdwan and Birbhum districts face inundation whenever floods of the Ajoy synchronize with that of the Mayurakshi, the Pagla, the Bansloi and the Bhagirathi.

10. DAMODAR

The river Damodar originating from Palamau hills in Jharkhand, bifurcates into two channels at Beguahana. The main flow passes through Mundeswari channel and discharges into Rupnarayan. The other one Amta channel carries discharge during high flood and outfalls into the Hooghly. The river causes floods in its lower reaches in the districts of Burdwan, Hooghly and Howrah, mainly on the right bank of the river below Beguahana.

11. DWARAKESWAR-SILABATI-RUPNARAYAN

Dwarakeswar originates from the high lands of Purulia district. River Ganddheswari rising from Bankura district meets Dwarakeswar near Bankura town receiving water from streams like Arkasha, Bera, enters Hooghly district and meets Silabati to form Rupnarayan.

Silabati also originates in Purulia district. It traverses through the district of Midnapore. The river receives water of Joypanda and meets with Dwarakeswar to form Rupnarayan.

Rupnarayan is a combination of number of streams. The tidal reach below confluence of Dwarakeswar and Silabati is known as Rupnarayan. It outfalls into Hooghly after receiving mainflow of Damodar through Mundeswari and branch of Kangsabati. The river is tidal throughout its entire course.

12. KANGSABATI-KALIAGHAI-HALDI

The river Kangsabati originating from Purulia district is joined by Kumari in Bankura district. Further down, it is joined by the combined streams of Bhairab Banki and Tarafeni rivers and thereafter it flows through the Midnapore district. After a tortuous course, it bifurcates. The upper branch known as old Cossye or Palaspai Khal outfalls into the Rupnarayan and the other one is known as New Cossye.

The river Kaliaghai trickles out from Jhargram, P.S. in Midnapore district. During the course of its journey, it is fed by the flow of its tributaries namely Kapaleswari, Baghai and Chandia. This combined flow meets the other arm of Kangsabati i.e. New Cossye to form Haldi.

The river Haldi formed by joining of New Cossye and the combined flow of Kaliaghai outfalls into the river Hooghly. The lower portion of the river Haldi is affected by over bank spills and drainage problem during the monsoon.

13. RASULPUR

The river Rasulpur is formed by three streams namely Bagda, Sarpai and Madhakhali. It is the main river of Contai Sub-Division of Midnapore district. It acts as the main drainage for Dwarakeswar, Silabati and large portion of the Kangsabati rivers. It causes flooding in two regions namely Dubda and Contai areas. The river ultimately falls into the river Hooghly.

14. TIDAL RIVERS OF SOUTHERN WEST BENGAL.

Apart from the rivers described earlier within the Ganga and the Brahmaputra river systems, there is a group of rivers in Southern part of the State which falls in the deltaic zone. These rivers mostly lie in the deltaic zone to the east of the Hooghly river popularly known as Sundarbans and form an intricate network with a number of criss-cross inter connecting channels, thus dividing the land spill channels of Ganga, then upland supply running dry, during winter months. But gradually their off-takes from Ganga have deteriorated and in some cases being cut-off from the river. Now these rivers drain off whatsoever fresh discharge comes from country sides, thus ultimately draining into Bay of Bengal through one or other of the principal estuaries in the area which are, starting from Hooghly river successively the Bartala of Muriganga or channel creek, Saptamukhi, Matla, Gosaba, Hariabhanga, Raimongal etc.

The Tolly's Nullah or the Adi Ganga, as it is sometimes called is a small but important tidal creek draining into the Hooghly from the left in the vicinity of the city of Kolkata.

1.2.3 SUBARNAREKHA BASIN

The river Subarnarekha though it has small catchment within this state, has got separate entity as it directly falls into the Bay of Bengal. Originating in the Chotonagpur Range at an elevation of 609 M it traverses through three states – Bihar, West Bengal and Orissa. It drains a total area of 18,951 sq.km. of which 13,590 sq.km. in Bihar, 2,160 sq.km. in West Bengal and 3201 sq.km. in Orissa. The main tributaries of the river are Kanchi and Khakai above Chandil in Bihar, Kakhai in Bihar and Orissa and Dolong in West Bengal.

2. RAINFALL

Due to its physical and geographical position, the state, apart from diverse characteristics like physical, topographical has climatological variations as well. The average rainfall in the state is 1750 mm of which more than 75% occurs during the monsoon period while the hilly region at the foot hills receives the heaviest rainfall ranging from 2500 mm to 5000 mm, the southern districts in the plains receive average of 1125 mm to 1875 mm. The 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 gets 78% of its annual rainfall during the monsoon period. During last seventy five years, the date of onset of monsoon over West Bengal was spread between last week of May to last week of June with its withdrawal between last week of September to second week of October. This year the onset of monsoon over West Bengal spread between early second week of June to early second week of October.

2.1 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.

2.1.1 HIMALAYAN AND SUB-HIMALAYAN REGION.

The Himalayan and Sub-Himalayan Region comprising the districts- Darjeeling, Jalpaiguri, Coochbehar and Northern part of Islampur Sub-Division of Uttar Dinajpur district of high intensity of rainfall from 2000 mm. to over 4000 mm. about 80% of which is found to occur during monsoon season. On the average Darjeeling, Coochbehar and Jalpaiguri get 114, 112, 110 rainy days respectively in a year. The monsoon generally follows a northerly 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 northwards to the Himalayan foothills. It has been found that a precipitation to the tune of 200 to 300 mm. in two hours is not unusual while

in more than forty occasions of rainfall of 250 mm. and above have been registered during 1891-1965.

2.1.2 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 : Comprising districts – Bankura, Burdwan, Hooghly, Nadia and Purulia which receive an average rainfall – between 1140 mm and 1400 mm.
- Sector – II : Comprising districts – Birbhum, Midnapore, Murshidabad and North 24-Parganas having an average annual rainfall between 1400 mm and 1650 mm.
- Sector – III : Comprising districts – Howrah and South 24-Parganas having an average annual rainfall – between 1650 mm and 1900 mm.

Such regional variations in the precipitation pattern causes flood conditions from time to time.

This year in the Gangetic West Bengal region districts – Midnapore (-40.33 %), Howrah (-39.55 %), Nadia (-22.04 %), Bankura(-22.94 %), Purulia(-23.45 %), Burdwan(-24.45 %), Birbhum (-30.38 %) and Hooghly (-34.39 %), South 24-Parganas(-31.39 %), Murshidabad(-16.02 %) & North 24-Parganas(-27.04%) had experienced less rainfall than normal . In short all eleven districts of Gangetic West Bengal region witness deficit of rain fall in the range of -22 % - 40%. In the Sub-Himalayan region excepting the district Darjeeling (+10.11 %), all the other districts witness deficit rainfall ranging rainfall from -38.23% in South Dinajpur to -1.51% in Malda -

During Monsoon period (June 2009 to October 2009) there is a deficit of -16.59 % rain fall in Gangatic West Bengal and -12.64 % Sub Himalayan West Bengal.

District wise actual and normal monthly rainfall during the year 2009, District wise actual and normal rainfall during the year 2009, District wise actual and normal rainfall during the monsoon period from June 2009 to October 2009 along with district wise monsoon rainfall in percentage of normal annual rainfall are given in Annexure A1 , A2 A3, & A4 respectively.

Gauge levels of important rivers during the monsoon period of 2009 along with relevant graphs are given in Annexure from G-1(a) to G-27 (a) (in 81 sheets).

Reservoir along with outflow of different dams and barrages (Durgapur Barrage, Tilpara Barrage, Panchet Dam, Masanjore Dam, Tenughat Dam) during monsoon period are given in annexure R1 to R15

3. REPORT ON FLOOD DURING – 2009 OF WEST BENGAL.

At first one must recall the memories of devastation occurred to the State by the onslaught of severe cyclone AILA. This department forced to open flood control room prematurely since 27th

May 2009 . Cyclone AILA formed in the Bay of Bengal and hitting the State on 25th May 2009 caused havoc to the assets of the State of West Bengal in the districts of South & North 24-Parganas. Damages of varying degree have also occurred in the districts of Purba & Paschim Medinipur, Hooghly, Howrah, Jalpaiguri and Coochbehar falling within the zone of influence of the cyclone, which subsequently turned into deep depression as it moved towards north. About 3500 km girdle of embankment over myriads of creeks and channels in about 4260 sq km habitable area of Indian Sundarban in the districts of South & North 24-Parganas were constructed in 18th and 19th century, in a rather unplanned way, with the locally available earth, for the purpose of reclamation of the premature delta. Now, 37.57 lakh people live in Sundarban, average density of population is 882 persons / sq km, much higher than the national average, river silt gets deposited within the channel, altering the hydro morphological condition and accentuating erosion at many places. In Sundarban, ground level varies from 2 m to 2.5 m GTS (elevation from MSL), whereas peak value of normal diurnal tide is around 2.5 to 3 m GTS, sometimes it is even more than 3.3 m and in cyclonic weather. Average crest level of embankment has now been raised to 5.0 to 5.5 m GTS (about 3 to 3.5 m above average ground level. Rivers and sea have swollen abnormally in the cyclonic period which coincidentally occurred just the following day of new moon making it more severe and the resultant surge created by strong easterly wind (velocity more than 120 KM per Hour) have surpassed all previous records available since last 130 years (Source: Kolkata Port Trust). Surge during the severe cyclone; AILA' on 24th May 2009 surpassed all previous records, the observed level was around +6.80 m GTS, which is about 4.0 m higher than the predicted H.T.L. on that day as per Tide Table of Kolkata Port Trust. This level is 4 to 4.5 m higher than ground level. Such water rise created havoc in entire area of Sundarban. Embankments over myriads of creeks, drainage channels and on the shore line in Sundarban areas suffered most severely, in different stretches for a length of about 968.40 km, of which breaches / washing out of river embankments have occurred for a length of 167 km and of sea dykes for a length of 14.8 km, 774 km partially to severely damaged river embankment, 12.60 km partially to severely damaged sea dyke . Such disaster are unprecedented in yonder memories. Due to abnormal water rise nearly entire area was inundated by the saline water affecting more than 30 lakh people According to Press nearly 200 people were dead with innumerable numbers of animals were found dead in this disaster.

Embankments in various districts of the State in general and Sundarban areas in particular are used as communication link, particularly during periods of calamity for safe passage of people and carrying relief materials. Disruption of such communication links leads livelihood activities almost to a grinding halt. Moreover, embankments, constructed decades and century ago are functioning as lifeline to the people of Sundarban since those prevent entry of diurnal high tidal water into the countryside where average ground level is substantially lower than the normal amplitude of high tide. Due to breach as well as washout of embankments major portion of the area was disconnected from basic facilities of life.

Besides that over all this State suffered nearly 28.86% deficit rainfall across the State with total rainfall of 1045.53 mm rainfall in place of 1469.77 mm annul rainfall. ✓

Flood is a recurring problem and is almost a regular feature in this state. The state has experienced flood almost every year excepting a very few instances. A major part of the state was created through delta building process by its river systems. Over the years vast area was reclaimed prematurely by constructing flood embankments. Those areas were not allowed to be properly built up by not allowing flood to deposit its silt load in those areas. 42.43% geographical area of the state is flood prone. The flood affected areas as presented below from 1960 to 2009 will depict a scenario of recurrence of high flood in the state.

Flood affected area(Sq.km.)	Years of occurrence	Total No. of years.
Below 500	1985,89,92,94,97,2001 & 2005, 2006	8
Between 500-2000	1962,63,64,65,66,72,75,96,2003,2004,2007	11
Between 2000-5000	1960,61,67,69,70,74,76,80,81 & 82	10
Between 5000-10,000	1973,77,93,95,98	6
Between 10,000 – 15,000	1968,79,83,90 & 99	5
Between 15,000 – 20,000	1971,86,87 & 88	4
Above 20,000	1978,80,84 & 2000.	4

This year i.e. 2009 may be considered as a year of deficit rainfall (-21.4 %). The rainfall over the state during the year is below the normal average rainfall in Sub-Himalayan West Bengal (i.e. by -12.64% departure) and deficit to the normal average rainfall in Gangetic West Bengal - 28.86 %).

Most of the rivers of the state were running with flow of normal intensity among the North Bengal rivers except – Raidak-II at L.R.P. Crossing, Torsa at Hasimara, Jaldhaka at NH-31, Mahananda at H.C.Road, Sui at Pazol, Ganga at Manikchakghat, Ganga at Nimtita were running above Danger Levels but the rivr Mayna at Barisha, Ganga at Sabibganj, Ganga at Chakghat, Ganga at Nurpur, Ganga at Farakka, Ganga at Kalagaon, Ganga at Hatidah, Ganga at Patna, Fulahar at Teljana on both protected & unprotected areas, Gamari at Itahar, Mahananda at Englishbazar, Dangraghat & Jhawa, Teesta at Domohani were running above Extreme Danger Levels on a few occasions and among the South Bengal rivers – Dwaraka at Sankoghat, Damodar at Amta, Jalangi at Swarupganj, Churni at Hanskhali, Rupnarayan at Bandar, Jamuna at Gobardanga were running above Danger Levels but the rivers of Jamuna at Gaighata, Ichamati at Bongaon, & Mejdia, Subarnarekha at Sonakonai, Rupnarayan & Ranichaaaak, Bhagirathi at Berhampore, Kaliaghai at Amgachia, Kangsabati at Panskura & Kalmajore were running above Extreme Danger Levels on a few occasions.

District wise inundation report during the year 2009 in page no S1 along with damage area report for different districts in 60 pages.

4. CONCLUSION

The West Bengal is basically recipient of run-off generated outside the state. The state has a typical basin characteristics. In the north the rainfall is high and the ground slope is steep mainly in the Sub-Himalayan region. The rivers in the Terai region are wide with shallow depth. Due to continuous denudation of forest cover, Dolomite mining in the hills, the river beds are being silted up day by day reducing the carrying capacity of the rivers causing the flood. In the South & Central Region heavy rainfalls and run-off coming from the upper catchment cause drainage congestion and inundation due to very flat ground slope of the regions.

Main structural measures of flood control in West Bengal are embankments measuring 10000 km. (approx.) spread over different river systems, constructed over the years. There are dams across the Kangsabati, the Mayurakshi and the Damodar river system. But only in the Damodar river system the dams moderate the peak flood to some extent. The other structural measures like catchment area treatment and afforestation in upper catchment requires intervention at Government of India level as they are outside the state.

In North Bengal, an elaborate flood warning system maintained by the department warns the people about the trend of rise of the rivers and thus alarm them to take necessary safety measures. In Central & South Bengal the water level of different rivers together with their danger & extreme danger levels and releases from different dams and reservoirs are intimated to different authorities from time to time during rainy season. Besides, the department also tries to maintain contact with Indian Meteorological Department, Kolkata to get information on adverse weather condition during the monsoon period and to take possible measures. Central Water Commission also extends their co-operation in supplying the conditions and trends of important river conditions in addition to rainfall data at different rain gauge stations.

Besides the department has already opened its own website (www.wbiwd.com) to make available daily rainfall data and river gauge levels with trend at different stations.

The flood management of the state is a vast problem. The problem cannot be tackled by the state government alone. It requires close liaison of different organisations. The flood awareness particularly understanding about the complexity of the causes of flood and vulnerability of West Bengal will require help of NGO's and Panchayet Raj Institutions. The flood is a problem to be admitted by the society and the people of an area are to formulate their own action plan in close liaison with different Government organizations.

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Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month January 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	4.8	12.3	-61
2	Birbhum	1.8	12.2	-85
3	Burdwan	0	12.8	-100
4	Hoogly	0	10	-100
5	Howrah	0	10	-100
6	Midnapur	0.1	14.5	-99
7	Murshidabad	0.2	15.6	-99
8	North 24 parganas	0	15.5	-100
9	Nadia	15.4	15	32
10	Purulia	8.9	11.7	-24
11	South 24 parganas	0	14.7	-100
Total		31.2	144.3	
Average		2.836	13.118	-78.38

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	0	12.5	-100
2	Darjeeling	0	16.9	-100
3	Jalpaiguri	0	9.2	-100
4	Malda	1.1	12.4	-91
5	North Dinajpur		7	
6	South Dinajpur	0	7	-100
Total		1.1	65	
Average		0.183	10.833	-98.31

**Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month February 2009**

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	0	16.8	-100
2	Birbhum	9	19.6	-54
3	Burdwan	0	16.9	100
4	Hoogly	0	24.8	-100
5	Howrah	0	19.5	-100
6	Midnapur	0	21	-100
7	Murshidabad	0	11.5	-100
8	North 24 parganas	0	19.4	-100
9	Nadia	5.6	15.5	-64
10	Purulia	0	19.9	-100
11	South 24 parganas	0	21.1	-100
Total		14.6	206	
Average		1.327	18.727	-92.91

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	0	13	-100
2	Darjeeling	0	14	-100
3	Jalpaiguri	0	11.2	-100
4	Malda	6.8	11.5	-41
5	North Dinajpur		15.1	
6	South Dinajpur	0	15.1	-100
Total		6.8	79.9	
Average		1.133	13.317	-91.49

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month March 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	27.9	27.9	0
2	Birbhum	7.8	26.1	-70
3	Burdwan	21.3	20.6	3
4	Hoogly	25.4	29.8	-15
5	Howrah	4	32.9	-88
6	Midnapur	17.5	34.3	-49
7	Murshidabad	24.4	19.1	28
8	North 24 parganas	33.3	25.8	29
9	Nadia	30.7	22.7	35
10	Purulia	11.1	23.6	-53
11	South 24 parganas	20.7	30.8	-33
Total		224.1	293.6	
Average		20.37	26.69	-23.67

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	40.7	34.6	18
2	Darjeeling	12.9	39.7	-67
3	Jalpaiguri	33.5	32.8	2
4	Malda	0.3	12.6	-98
5	North Dinajpur		23	
6	South Dinajpur	16.5	23	-28.26
Total		103.9	165.7	
Average		17.317	27.617	-28.9

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month April 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	0.7	40	
2	Birbhum	0	41	100
3	Burdwan	0.3	37	99
4	Hoogly	0	66.6	-100
5	Howrah	0	55.4	-100
6	Midnapur	4.1	47.2	-91
7	Murshidabad	0	45.4	-100
8	North 24 parganas	0.4	50.5	-99
9	Nadia	0	55.8	-100
10	Purulia	1.3	34.4	-96
11	South 24 parganas	6	51.9	-88
Total		12.8	525.2	
Average		1.16	47.75	-97.56

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	190.3	127	50
2	Darjeeling	145.4	82.4	76
3	Jalpaiguri	153.9	123.1	25
4	Malda	0	37.1	-100
5	North Dinajpur		62.4	-100
6	South Dinajpur	0	62.4	-100
Total		489.6	494.4	
Average		81.600	82.400	-0.97

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month May 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	196.7	71.6	174.72
2	Birbhum	231.3	94	146.06
3	Burdwan	228.8	73	213.42
4	Hoogly	194.5	111.7	74.13
5	Howrah	328	117.4	179.39
6	Midnapur	307.7	108.3	184.12
7	Murshidabad	176.6	100.9	75.02
8	North 24 parganas	249.5	106.3	134.71
9	Nadia	214.3	96.1	123.00
10	Purulia	113.2	54.8	106.57
11	South 24 parganas	235.1	104.3	125.41
Total		2226.2	932.1	
Average		202.38	84.74	138.84

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	263	390	-32.56
2	Darjeeling	397.5	188.2	111.21
3	Jalpaiguri	258.2	303.8	-15.01
4	Malda	296.7	104.4	184.20
5	North Dinajpur		163.8	-100.00
6	South Dinajpur	59.4	163.8	-63.74
Total		1274.8	1314	
Average		212.467	219.000	-2.98

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month June 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	56.8	216.8	-73.80
2	Birbhum	75.9	228.3	-66.75
3	Burdwan	48.6	229.4	-78.81
4	Hoogly	79.8	236.8	-66.30
5	Howrah	43.9	237.7	-81.53
6	Midnapur	65.7	245.5	-73.24
7	Murshidabad	73.8	222.7	-66.86
8	North 24 parganas	87.7	289.5	-69.71
9	Nadia	113	223.2	-49.37
10	Purulia	55.4	218.1	-74.60
11	South 24 parganas	78.3	270.3	-71.03
Total		691.2	2328.8	
Average		62.84	211.71	-70.32

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	418	708.2	-40.98
2	Darjeeling	350.6	507.5	-30.92
3	Jalpaiguri	656.2	634.7	3.39
4	Malda	29.9	212.8	-85.95
5	North Dinajpur	220.8	298.4	-26.01
6	South Dinajpur	42.7	298.4	-85.69
Total		1718.2	2660	
Average		286.367	443.333	-35.41

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month July 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	307.3	309.3	-0.65
2	Birbhum	231.3	305.7	-24.34
3	Burdwan	254.4	324.8	-21.67
4	Hoogly	202.9	301.5	-32.70
5	Howrah	371.3	338.6	9.66
6	Midnapur	280.5	307.8	-8.87
7	Murshidabad	185.5	325.9	-43.08
8	North 24 parganas	234.2	326	-28.16
9	Nadia	175.2	244.3	-28.28
10	Purulia	293.7	294.4	-0.24
11	South 24 parganas	409.6	356.8	14.80
Total		2711.7	3109.1	
Average		246.52	282.65	-12.78

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	357	717.8	-50.26
2	Darjeeling	765.2	766.3	-0.14
3	Jalpaiguri	698.5	841.7	-17.01
4	Malda	262.1	327.1	-19.87
5	North Dinajpur	320.1	378	-15.32
6	South Dinajpur	314.3	378	-16.85
Total		2717.2	3408.9	
Average		452.867	568.150	-20.29

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month August 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	325.9	296.9	9.77
2	Birbhum	303.7	293.3	3.55
3	Burdwan	371.3	303.6	22.30
4	Hoogly	332.3	272.3	22.03
5	Howrah	195.7	351.5	-44.32
6	Midnapur	284.7	336.4	-15.37
7	Murshidabad	358.5	261.9	36.88
8	North 24 parganas	506.8	336.4	50.65
9	Nadia	301.2	230	30.96
10	Purulia	337.4	311.7	8.25
11	South 24 parganas	318.2	362.3	-12.17
Total		2827.7	2789.9	
Average		257.06	253.63	1.35

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	598.8	553.4	8.20
2	Darjeeling	759.8	555.5	36.78
3	Jalpaiguri	746.3	649.1	14.97
4	Malda	320.1	264.1	21.20
5	North Dinajpur	464.4	242.8	91.27
6	South Dinajpur	376.4	242.8	55.02
Total		3265.8	2507.7	
Average		544.300	417.950	30.23

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month September 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	311.7	246.9	26.25
2	Birbhum	282.6	258.9	9.15
3	Burdwan	302.7	240.3	25.97
4	Hoogly	242.6	219.8	10.37
5	Howrah	298.6	297	0.54
6	Midnapur	255.4	310.3	-17.69
7	Murshidabad	381.6	228.2	67.22
8	North 24 parganas	303.9	300	1.30
9	Nadia	300.5	185.6	61.91
10	Purulia	262.5	254.3	3.22
11	South 24 parganas	315.7	319.5	-1.19
Total		2653.4	2375.2	
Average		241.22	215.93	11.71

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	170.7	470	-63.68
2	Darjeeling	265.8	424.2	-37.34
3	Jalpaiguri	263.8	540.3	-51.18
4	Malda	135.7	237.4	-42.84
5	North Dinajpur	43.7	269.1	-83.76
6	South Dinajpur	14.7	269.1	-94.54
Total		894.4	2210.1	
Average		149.07	368.35	-59.53

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month October 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	55.2	106.7	-48.27
2	Birbhum	93.2	110.6	-15.73
3	Burdwan	69	108	-36.11
4	Hoogly	72.3	101.5	-28.77
5	Howrah	65.8	100.3	-34.40
6	Midnapur	88.3	161	-45.16
7	Murshidabad	150.7	124.2	21.34
8	North 24 parganas	59.9	141.1	-57.55
9	Nadia	67.7	111.3	-39.17
10	Purulia	72.7	85	-14.47
11	South 24 parganas	87.7	177.5	-50.59
Total		882.5	1327.2	
Average		80.23	120.65	-33.51

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	275.1	172.3	59.66
2	Darjeeling	307.3	125.3	145.25
3	Jalpaiguri	322.5	161	100.31
4	Malda	268.5	116.7	130.08
5	North Dinajpur	261.9	132.3	97.96
6	South Dinajpur	175	132.3	32.28
Total		1610.3	839.9	
Average		268.383	139.983	91.73

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the month November 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	13.1	15.8	-17.09
2	Birbhum	20	14.4	38.89
3	Burdwan	0.2	11	-98.18
4	Hoogly	6.2	21.3	-70.89
5	Howrah	0	30.2	-100.00
6	Midnapur	15.6	33.2	-53.01
7	Murshidabad	0	15.6	-100.00
8	North 24 parganas	23	13.9	65.47
9	Nadia	20.6	24.3	-15.23
10	Purulia	9.6	13.2	-27.27
11	South 24 parganas	31.5	36.5	-13.70
Total		139.8	229.4	
Average		12.71	20.85	-39.06

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	2.2	11.4	-80.70
2	Darjeeling	0.5	9.9	-94.95
3	Jalpaiguri	2.5	8.7	-71.26
4	Malda	3.8	11.6	-67.24
5	North Dinajpur		12.4	
6	South Dinajpur	0	12.4	-100.00
Total		9	66.4	
Average		1.500	11.067	-86.45

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal

For the month December 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	0	6.1	-100.00
2	Birbhum	0	5.8	-100.00
3	Burdwan	0	3.1	-100.00
4	Hoogly	0	6.5	-100.00
5	Howrah	0	13.4	-100.00
6	Midnapur	0.3	7.3	-95.89
7	Murshidabad	0	2.6	-100.00
8	North 24 parganas	0.2	6.1	-96.72
9	Nadia	0	4.1	-100.00
10	Purulia	0	5.4	-100.00
11	South 24 parganas	0	10.8	-100.00
Total		0.5	71.2	
Average		0.05	6.47	-99.30

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	0.2	2.8	-92.86
2	Darjeeling	1.8	3.6	-50.00
3	Jalpaiguri	2.4	4.5	-46.67
4	Malda	0	4.3	-100.00
5	North Dinajpur		4.9	
6	South Dinajpur	0	4.9	-100.00
Total		4.4	25	
Average		0.733	4.167	-82.40

Districtwise Monsoon Rainfall in percent of Normal Annual Rainfall
For the full year (January 2009 to Decemembr 2009)
(Data received from I.M.D, Alipur, Kolkata)

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	In percentage
1	Bankura	1295.3	1371.6	94.44
2	Birbhum	1263.8	1417.3	89.17
3	Burdwan	1296.6	1384.6	93.64
4	Hoogly	1156	1417.4	81.56
5	Howrah	1307.3	1613.4	81.03
6	Midnapur	1319.8	1633.3	80.81
7	Murshidabad	1351.1	1369.5	98.66
8	North 24 parganas	1498.9	1634.4	91.71
9	Nadia	1234.4	1228.4	100.49
10	Purulia	1156.9	1334.7	86.68
11	South 24 parganas	1502.8	1762.9	85.25
Total		14382.9	16167.5	88.96

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	In percentage
1	Coochbeher	2316	3213.5	72.07
2	Darjeeling	3006.8	2730.6	110.11
3	Jalpaiguri	3137.8	3322.1	94.45
4	Malda	1330.7	1351.1	98.49
5	North Dinajpur	1310.9	1617.3	81.05
6	South Dinajpur	999	1617.3	61.77
Total		12101.2	13851.9	87.36

Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
For the full year (January 2009 to Decemebr 2009)

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual Moonsam Rainfall(in mm)	Normal Annual Rainfall (in mm)	Departure (in %)
1	Bankura	1056.9	1371.6	-22.94
2	Birbhum	986.7	1417.3	-30.38
3	Burdwan	1046	1384.6	-24.45
4	Hoogly	929.9	1417.4	-34.39
5	Howrah	975.3	1613.4	-39.55
6	Midnapur	974.6	1633.3	-40.33
7	Murshidabad	1150.1	1369.5	-16.02
8	North 24 parganas	1192.5	1634.4	-27.04
9	Nadia	957.6	1228.4	-22.04
10	Purulia	1021.7	1334.7	-23.45
11	South 24 parganas	1209.5	1762.9	-31.39
Total		11500.8	16167.5	
Average		1045.53	1469.77	-28.86

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	2316	3213.5	-27.93
2	Darjeeling	3006.8	2730.6	10.11
3	Jalpaiguri	3137.8	3322.1	-5.55
4	Malda	1330.7	1351.1	-1.51
5	North Dinajpur	1310.9	1617.3	
6	South Dinajpur	999	1617.3	-38.23
Total		12101.2	13851.9	
Average		2016.867	2308.650	-12.64

Monthly Districtwise actual & Normal Rainfall received from
I.M.D, Alipur, Kolkata along with percent departure from the normal
During Monsoon period for June 2009 to October 2009

Sub-Division: Gangetic West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Bankura	1056.9	1176.6	-10.17
2	Birbhum	986.7	1196.8	-17.56
3	Burdwan	1046	1206.1	-13.27
4	Hoogly	929.9	1131.9	-17.85
5	Howrah	975.3	1325.1	-26.40
6	Midnapur	974.6	1361	-28.39
7	Murshidabad	1150.1	1162.9	-1.10
8	North 24 parganas	1192.5	1393	-14.39
9	Nadia	957.6	994.4	-3.70
10	Purulia	1021.7	1163.5	-12.19
11	South 24 parganas	1209.5	1486.4	-18.63
Total		9350.7	11210.3	
Average		850.06	1019.12	-16.59

Sub-Division: Sub Himalayan West Bengal

Sl no	Name of the district	Actual (in mm)	Normal (in mm)	Departure (in %)
1	Coochbeher	2316	3213.5	-27.93
2	Darjeeling	3006.8	2730.6	10.11
3	Jalpaiguri	3137.8	3322.1	-5.55
4	Malda	1330.7	1351.1	-1.51
5	North Dinajpur	1310.9	1617.3	-18.95
6	South Dinajpur	999	1617.3	-38.23
Total		12101.2	13851.9	
Average		2016.87	2308.65	-12.64

Gauge Levels of important rivers during season of 2009

North Bengal River

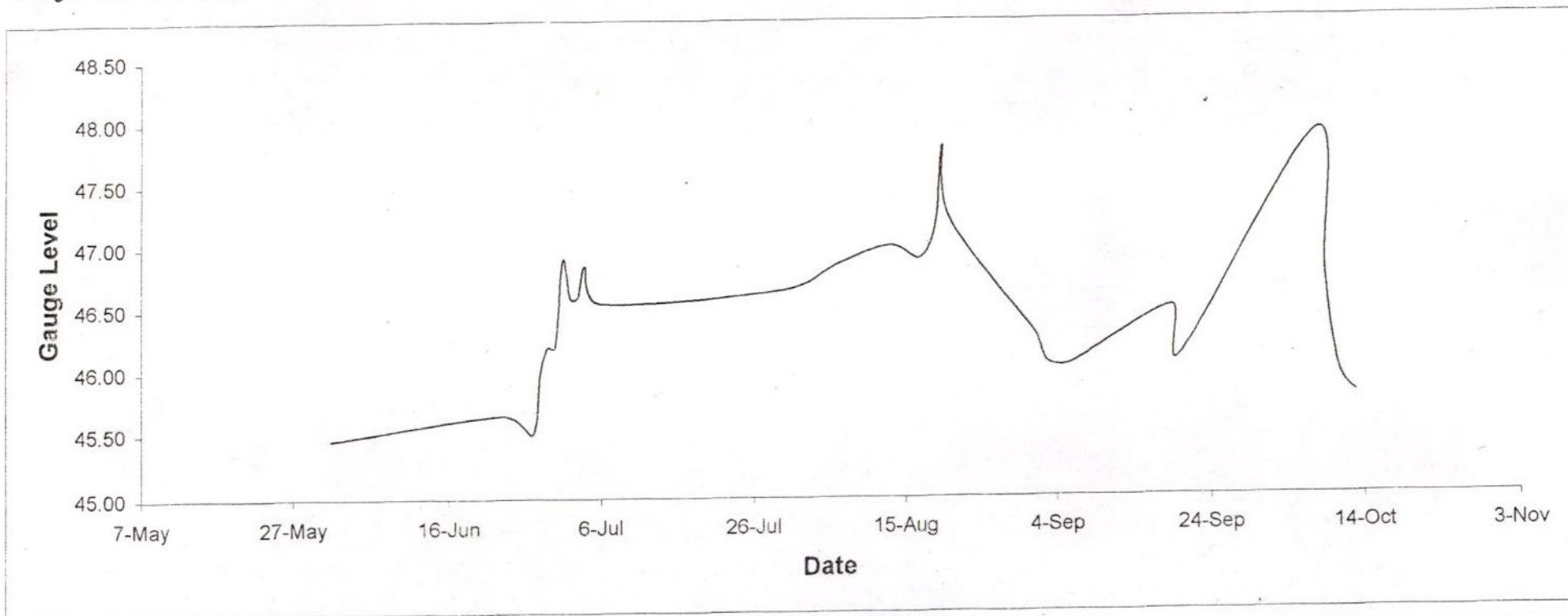
River- SANKOSH

Gauge- L.R.P. Crossing

Extreme Danger Level -49.1metre

Danger level -48.2 metre

At 6.00 AM



1-Jun	23-Jun	27-Jun	28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	4-Jul	6-Jul	30-Jul	6-Aug	13-Aug	17-Aug
45.45	45.65	45.50	46.00	46.20	46.20	46.90	46.60	46.60	46.85	46.55	46.65	46.85	47.00	46.90
19-Aug	20-Aug	21-Aug	1-Sep	2-Sep	3-Sep	6-Sep	19-Sep	20-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
47.15	47.80	47.20	46.30	46.15	46.05	46.05	46.50	46.10	47.90	46.80	46.25	45.95	45.85	45.80

Gauge Levels of important rivers during season of 2009

North Bengal River

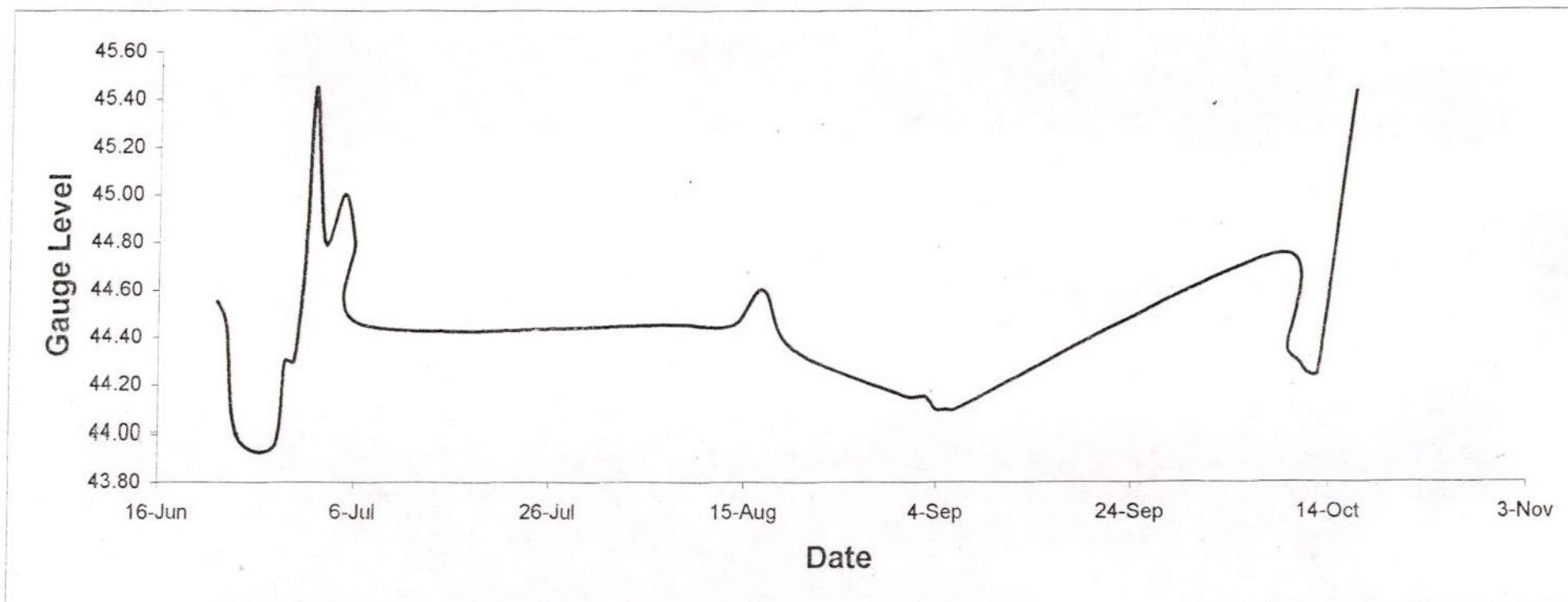
River- RAIDAK

Gauge- RAIDAK -I,L.R.P. Crossing

Extreme Danger Level -47.6 metre

Danger level -46.7 metre

At 6.00 AM



22-Jun	23-Jun	24-Jun	28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	5-Jul	6-Jul	7-Jul	7-Aug	8-Aug	9-Aug
44.55	44.45	44.00	43.95	44.30	44.30	44.70	45.45	44.80	45.00	44.80	44.45	44.45	44.45	44.45
14-Aug	17-Aug	20-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	17-Oct
44.45	44.60	44.35	44.15	44.15	44.15	44.10	44.10	44.10	44.75	44.35	44.30	44.25	44.25	45.43

Gauge Levels of important rivers during season of 2009

North Bengal River

River- RAIDAK

Gauge- RAIDAK -II, L.R.P. Crossing

Extreme Danger Level -49.0 metre

Danger level -48.1 metre

At 6.00 AM



8-Jun	9-Jun	20-Jun	27-Jun	29-Jun	30-Jun	1-Jul	4-Jul	5-Jul	6-Jul	30-Jul	31-Jul	6-Aug	13-Aug	17-Aug
45.70	45.70	45.85	46.65	45.70	45.70	46.20	46.70	46.30	45.85	45.90	45.90	46.00	46.10	46.15
19-Aug	20-Aug	21-Aug	1-Sep	6-Sep	8-Sep	9-Sep	19-Sep	20-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
46.85	46.80	46.4	45.70	46.85	45.70	45.75	45.85	45.75	45.60	46.60	46.20	45.75	45.70	45.60

Gauge Levels of important rivers during season of 2009

North Bengal River

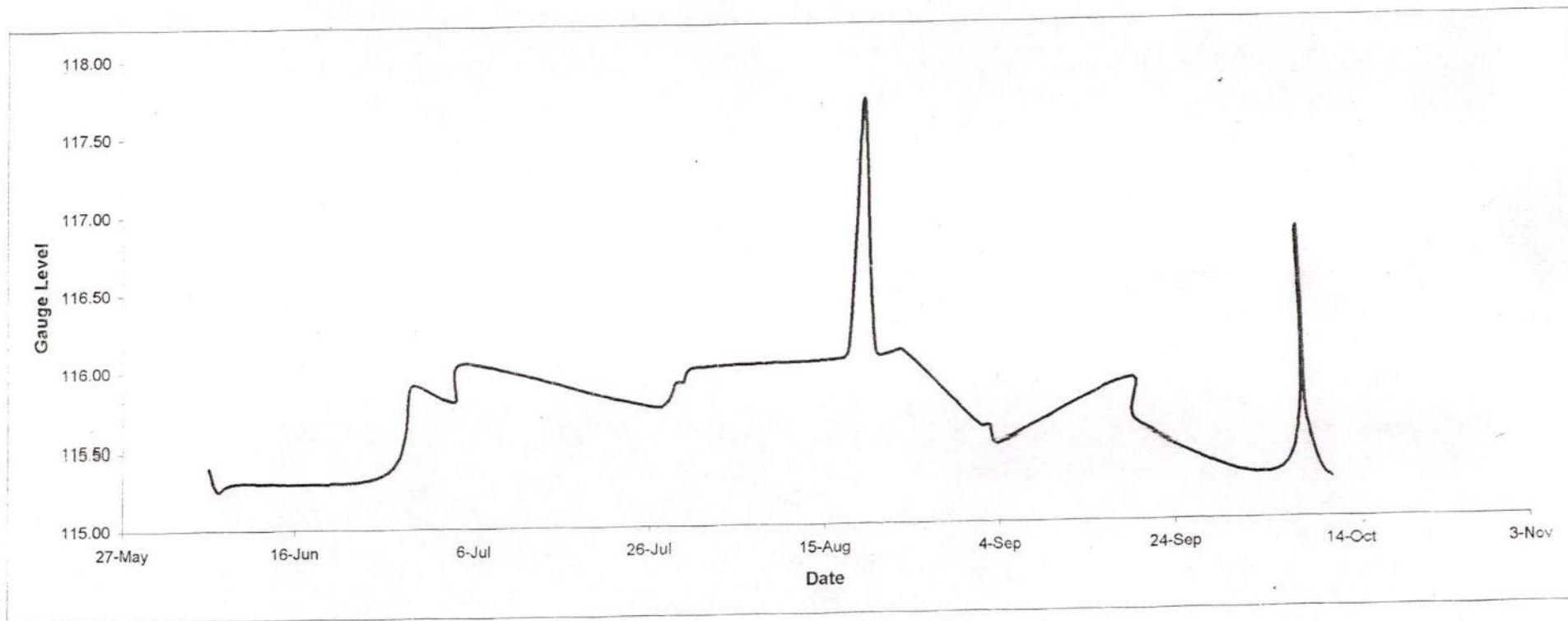
River- TORSA

Gauge- HASHIMARA

Extreme Danger Level -116.9 metre

Danger level -116.3 metre

At 6.00 AM



6-Jun	7-Jun	9-Jun	26-Jun	29-Jun	30-Jun	4-Jul	5-Jul	27-Jul	29-Jul	30-Jul	31-Jul	17-Aug	18-Aug	19-Aug
115.40	115.25	115.30	115.35	115.90	115.90	115.80	116.05	115.75	115.90	115.91	116.00	116.05	116.15	116.90
20-Aug	21-Aug	24-Aug	1-Sep	2-Sep	3-Sep	4-Sep	19-Sep	20-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
117.70	116.10	116.10	115.65	115.60	115.60	115.50	115.90	115.60	115.35	116.85	115.70	115.45	115.30	115.25

Gauge Levels of important rivers during season of 2009

North Bengal River

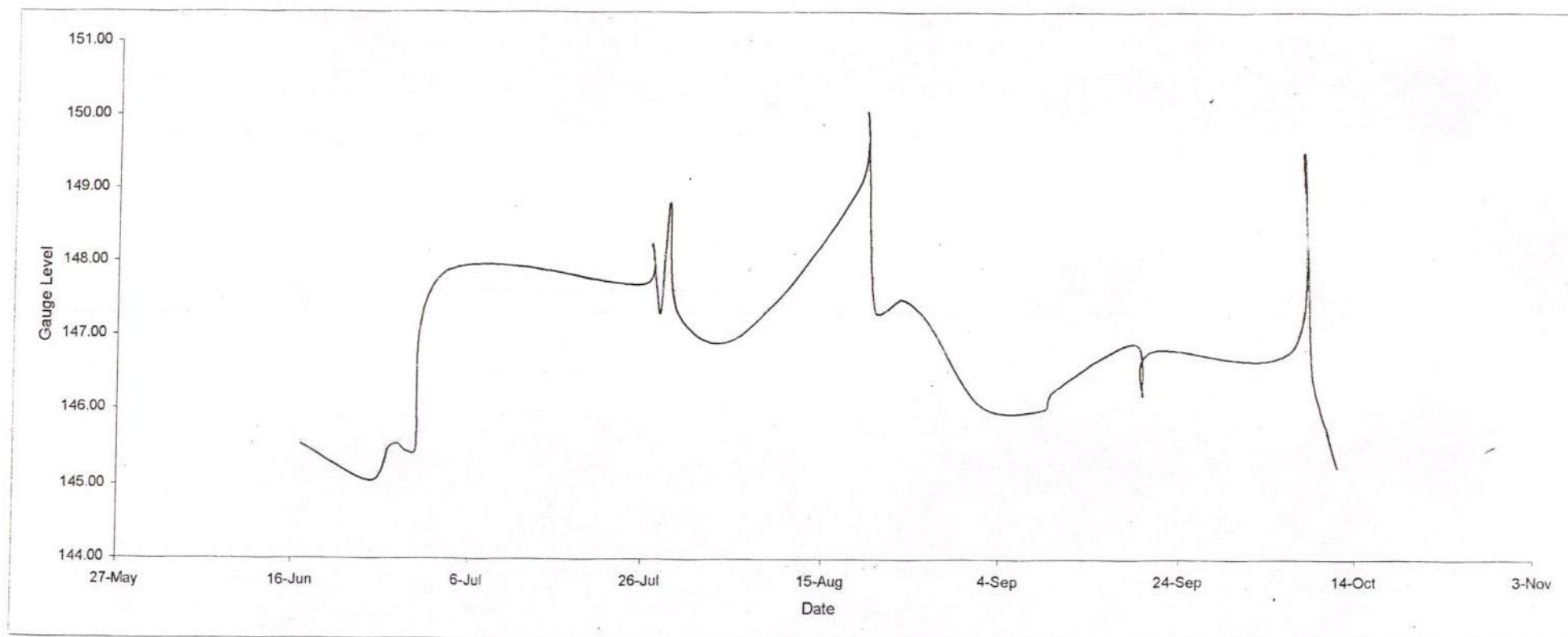
River- TORSA

Gauge- Kaljani/Alipurduar

Extreme Danger Level -45.7 metre

Danger level -45.1 metre

At 6.00 AM



17-Jun	25-Jun	27-Jun	28-Jun	29-Jun	30-Jun	3-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	6-Aug	19-Aug	20-Aug
145.55	145.05	145.50	145.56	145.45	145.45	147.85	147.70	148.25	147.30	148.80	147.30	147.00	149.00	150.00
21-Aug	24-Aug	27-Aug	2-Sep	9-Sep	10-Sep	19-Sep	20-Sep	21-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
147.35	147.50	147.20	146.05	146.00	146.25	146.90	146.20	146.80	146.85	149.50	146.60	146.00	145.65	145.25

Gauge Levels of important rivers during season of 2009

North Bengal River

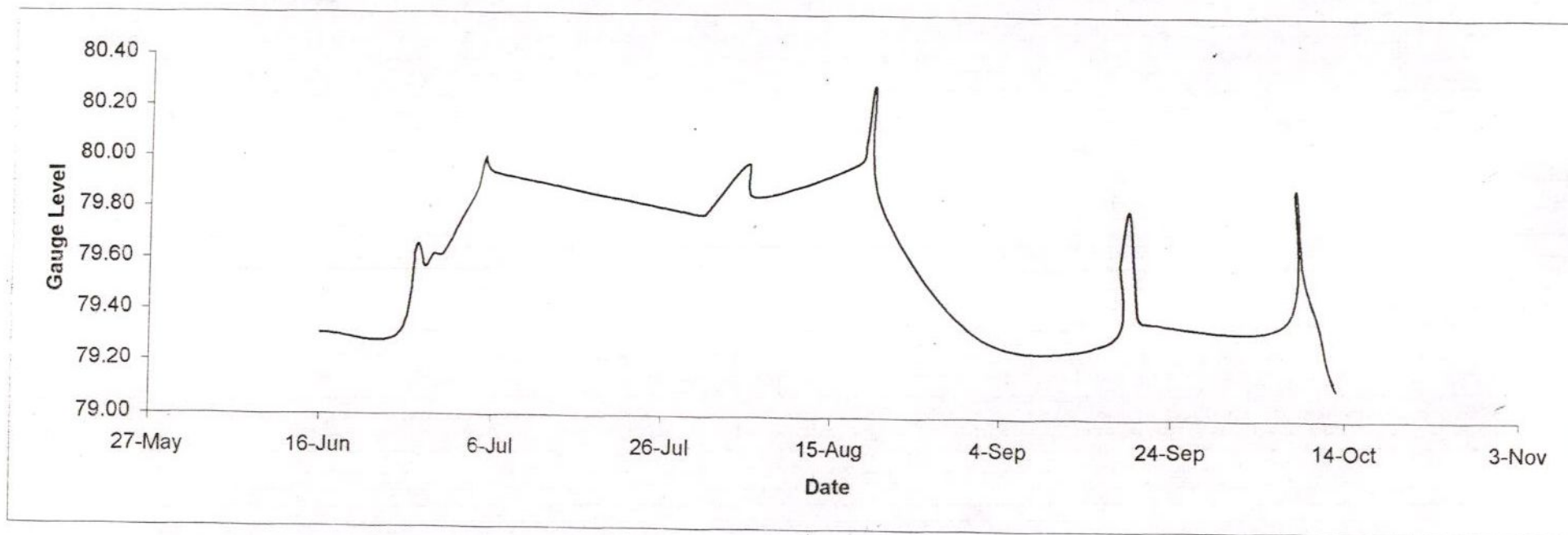
River- JALDHAKA

Gauge- NH-31 Crossing

Extreme Danger Level -80.5metre

Danger level -80 metre

At 6.00 AM



16-Jun	25-Jun	27-Jun	28-Jun	29-Jun	30-Jun	2-Jul	4-Jul	5-Jul	6-Jul	30-Jul	31-Jul	5-Aug	6-Aug	18-Aug
79.31	79.31	79.65	79.57	79.62	79.62	79.75	79.87	80.00	79.94	79.78	79.78	79.98	79.85	79.98
19-Aug	20-Aug	21-Aug	2-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	7-Oct	8-Oct	9-Oct	11-Oct	12-Oct	13-Oct
80.07	80.28	79.81	79.30	79.30	79.62	79.80	79.40	79.37	79.37	79.89	79.57	79.35	79.19	79.12

Gauge Levels of important rivers during season of 2010

North Bengal River

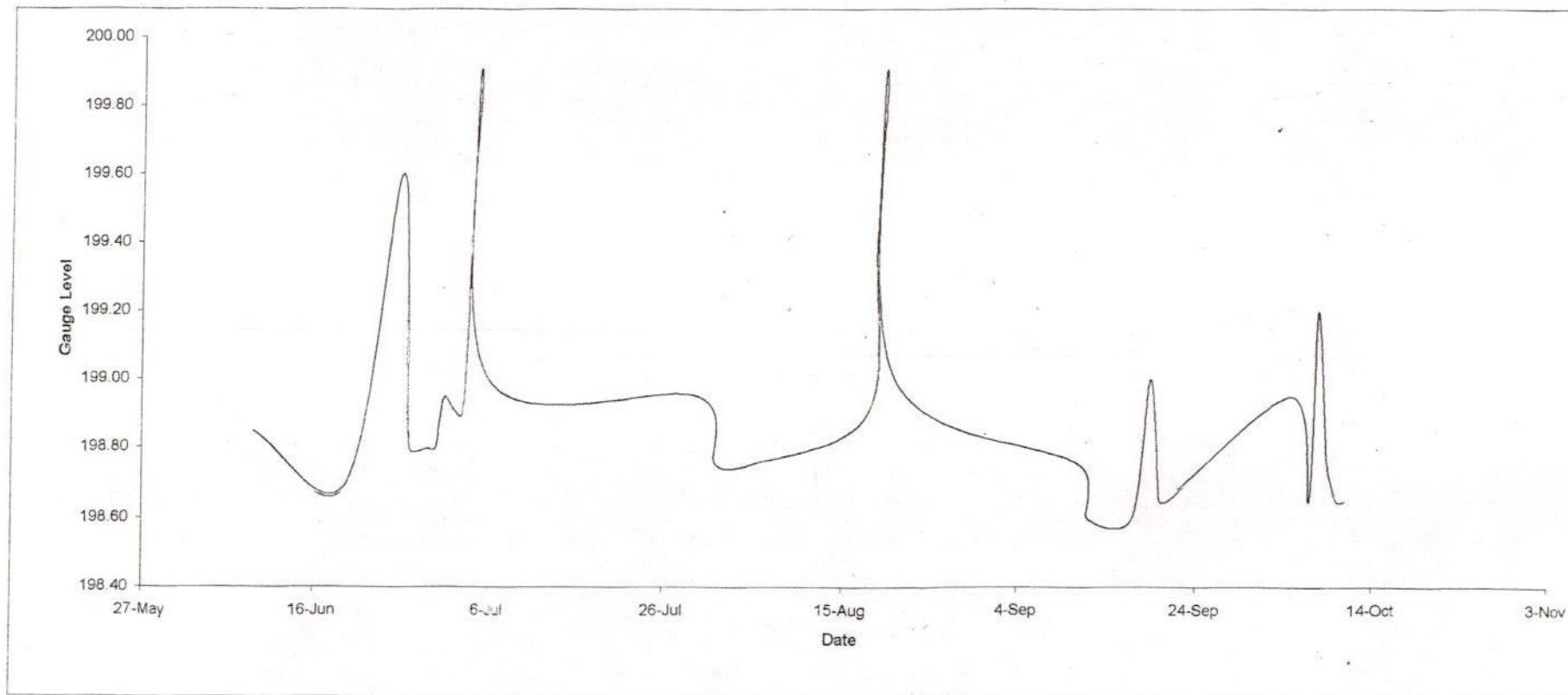
River- JALDHAKA

Gauge- Diana/Chengmari

Extreme Danger Level -201.4metre

Danger level -200.5metre

At 6.00 AM



9-Jun	20-Jun	26-Jun	27-Jun	28-Jun	30-Jun	1-Jul	3-Jul	4-Jul	5-Jul	6-Jul	30-Jul	1-Aug	5-Aug	18-Aug
198.85	198.70	199.60	198.80	198.80	198.80	198.95	198.90	199.40	199.90	199.00	198.95	198.75	198.75	198.90
19-Aug	20-Aug	21-Aug	11-Sep	12-Sep	17-Sep	19-Sep	20-Sep	21-Sep	5-Oct	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct
199.40	199.90	199.00	198.75	198.50	198.60	199.00	198.65	198.65	198.95	198.65	199.20	198.75	198.65	198.65

Gauge Levels of important rivers during season of 2009

North Bengal River

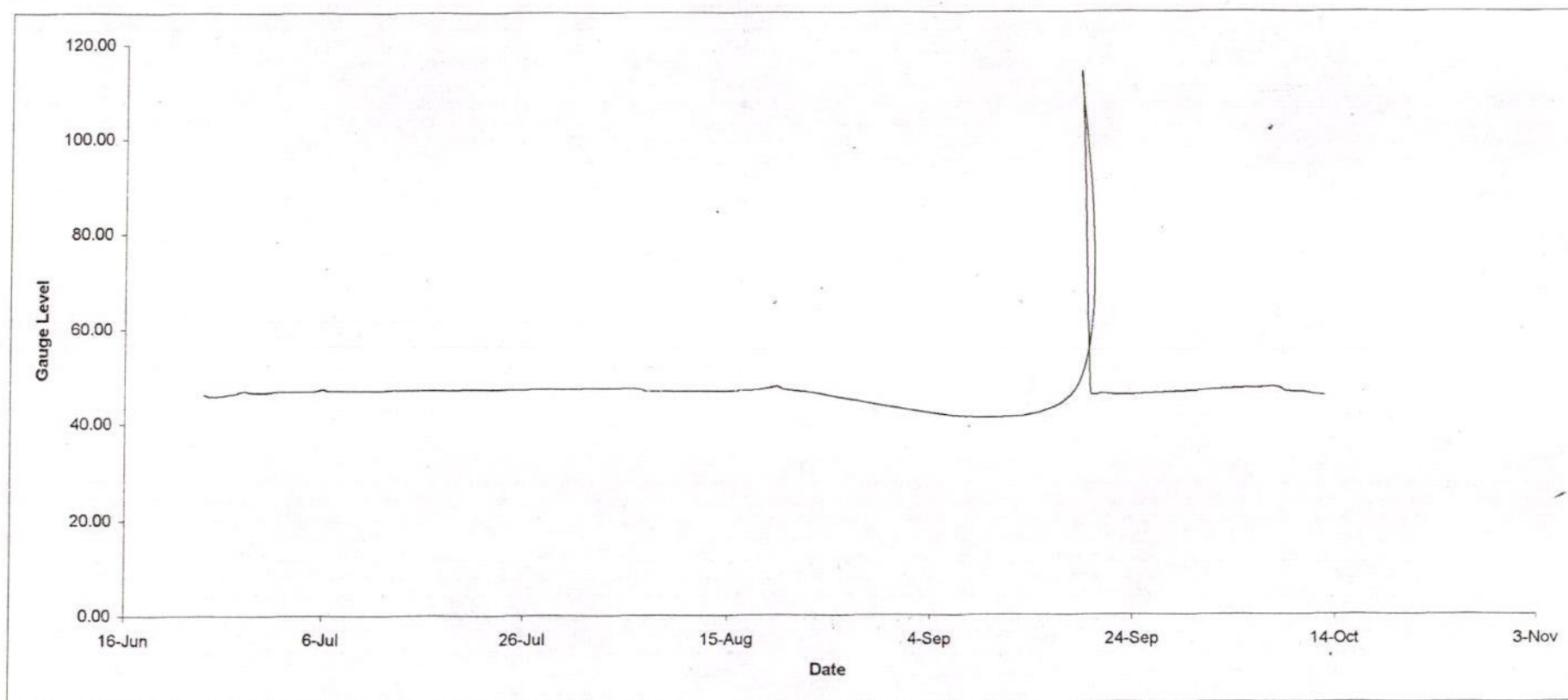
River- JALDHAKA

Gauge- Manasai-Mathabhanga

Extreme Danger Level -48.2 metre

Danger level -47.7 metre

At 6.00 AM



24-Jun	25-Jun	27-Jun	28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	5-Jul	6-Jul	7-Jul	6-Aug	7-Aug	8-Aug
46.13	45.65	46.27	46.90	46.52	46.52	46.76	46.74	46.80	46.76	47.17	46.90	47.29	46.70	46.70
17-Aug	20-Aug	21-Aug	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
46.83	47.71	46.94	45.85	44.20	46.28	46.18	45.97	45.82	47.43	46.58	46.40	46.37	45.88	45.65

Gauge Levels of important rivers during season of 2009

North Bengal River

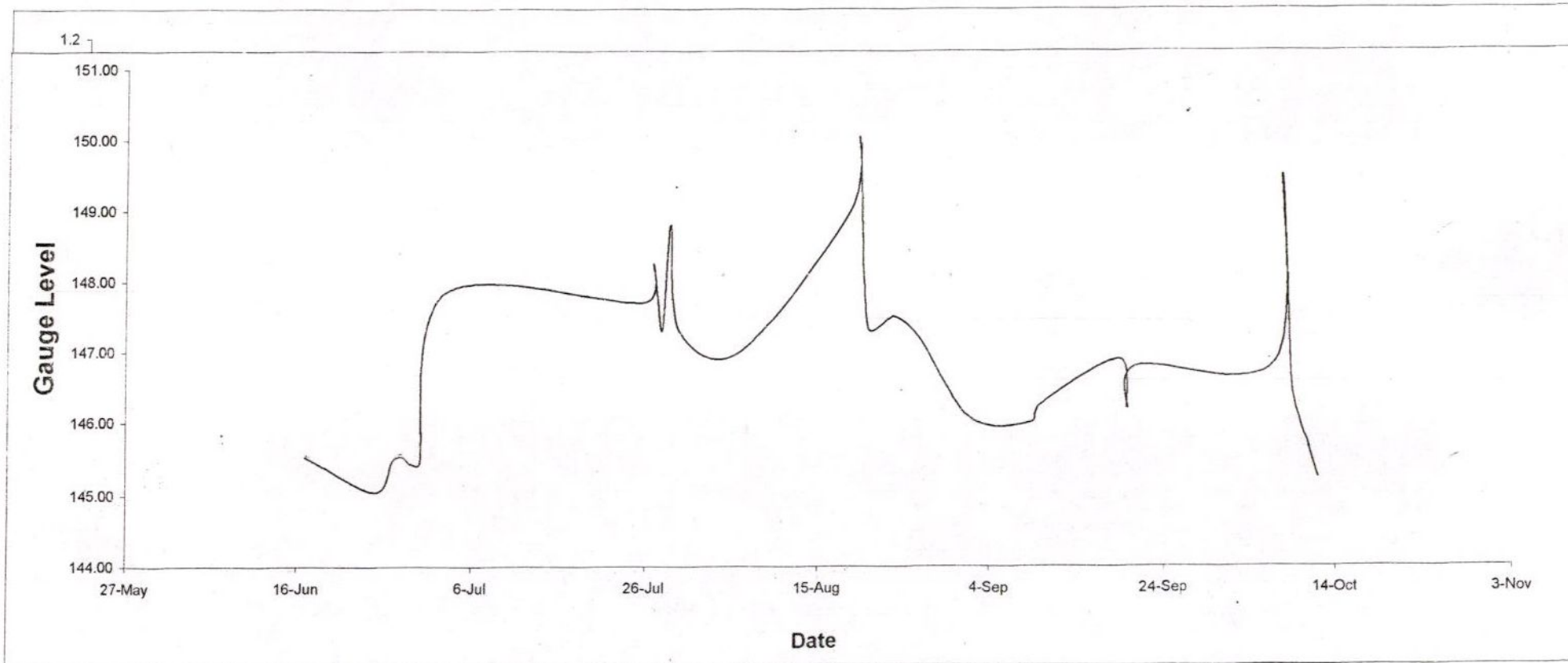
River-Teesta

Gauge- Coronation Bridge

Extreme Danger Level -151.8 metre

Danger level -149.4 metre

At 6.00 AM



17-Jun	25-Jun	27-Jun	28-Jun	29-Jun	30-Jun	3-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	6-Aug	19-Aug
145.55	145.05	145.50	145.55	145.45	145.45	147.85	147.70	148.25	147.30	148.80	147.30	147.00	149.00
21-Aug	24-Aug	27-Aug	2-Sep	9-Sep	10-Sep	19-Sep	20-Sep	21-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct
147.35	147.50	147.20	146.05	146.00	146.25	146.90	146.20	146.80	146.85	149.50	146.60	146.00	145.65

Gauge Levels of important rivers during season of 2009

North Bengal River

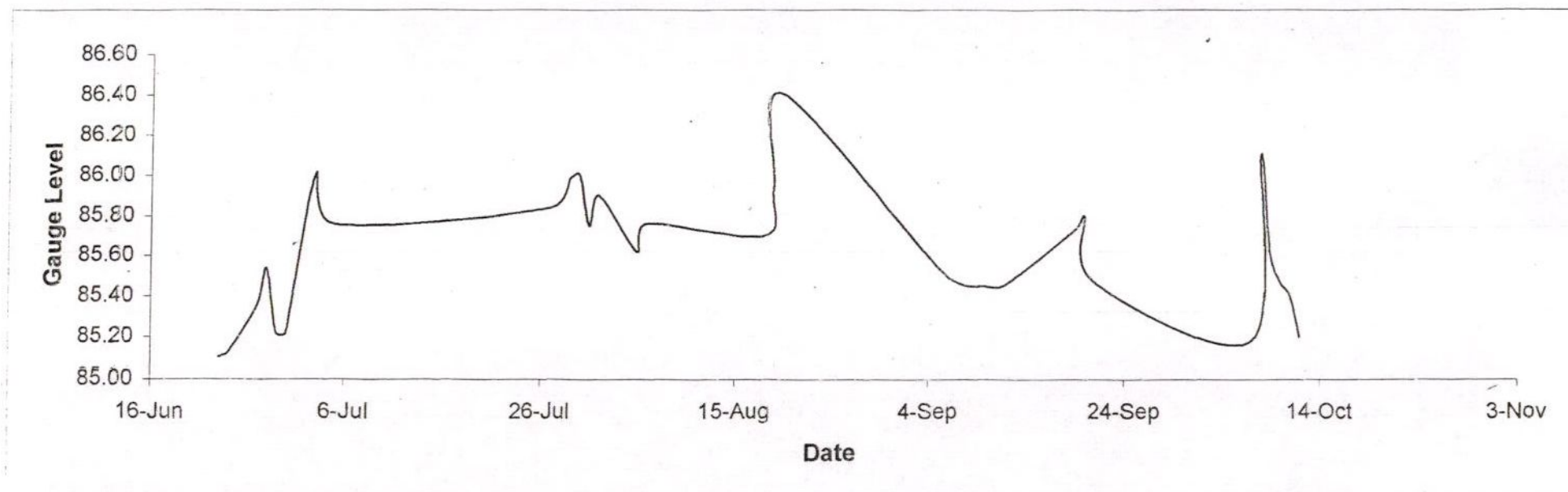
River- T(Teesta

Gauge- Domohani

Extreme Danger Level -85.9 metre

Danger level -85.65 metre

At 6.00 AM



23-Jun	24-Jun	27-Jun	28-Jun	29-Jun	30-Jun	3-Jul	5-Jul	27-Jul	29-Jul	30-Jul	31-Jul	1-Aug	5-Aug	6-Aug
85.10	85.12	85.36	85.54	85.22	85.22	86.01	85.76	85.84	85.98	86.00	85.75	85.90	85.62	85.76
18-Aug	19-Aug	20-Aug	6-Sep	10-Sep	12-Sep	19-Sep	20-Sep	21-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
85.70	85.94	86.40	85.50	85.45	85.46	85.73	85.80	85.47	85.18	86.10	85.61	85.47	85.40	85.20

Gauge Levels of important rivers during season of 2009

North Bengal River

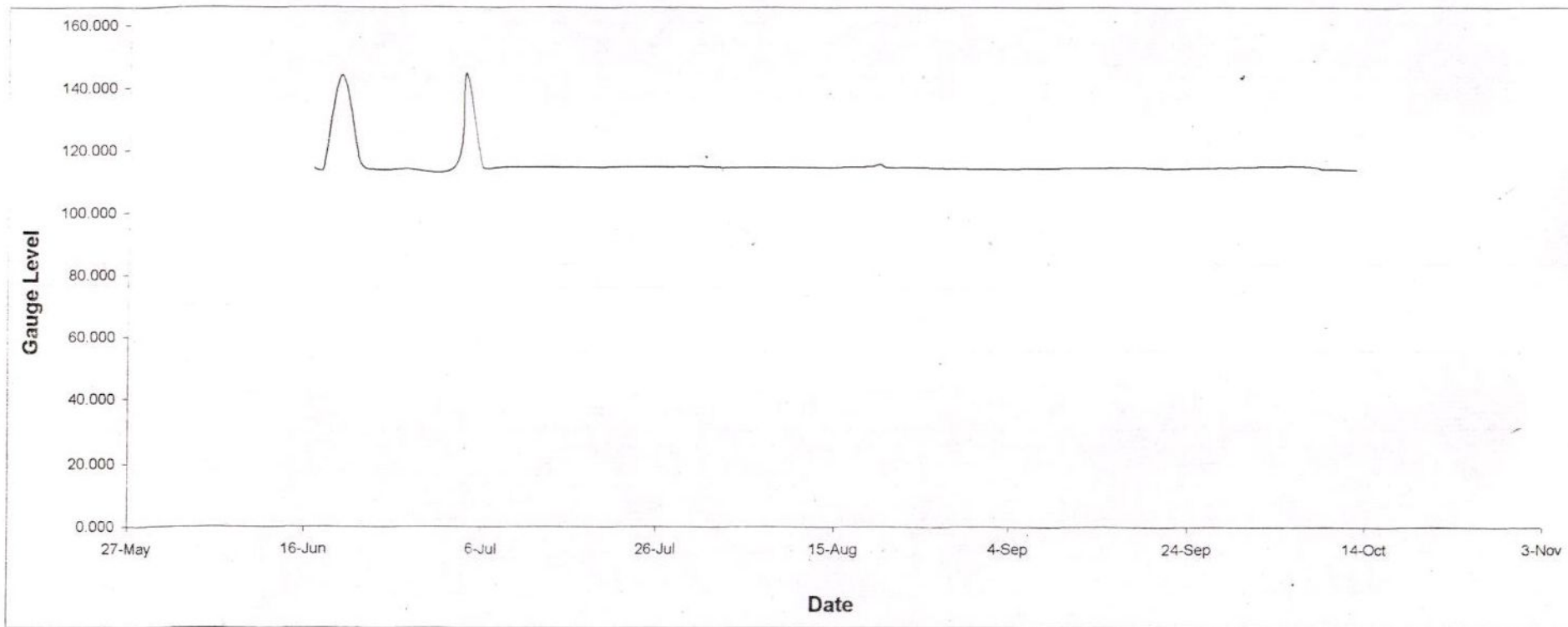
River-Mahananda

Gauge- Hill Curt Road

Extreme Danger Level -116.59 metre

Danger level -115.97 metre

At 6.00 AM



17-Jun	18-Jun	20-Jun	22-Jun	23-Jun	27-Jun	3-Jul	4-Jul	6-Jul	8-Jul	29-Jul	30-Jul	6-Aug	12-Aug	19-Aug
114.20	113.75	144.00	116.59	113.78	113.85	115.30	144.35	114.25	114.25	114.40	114.60	114.25	114.30	114.70
20-Aug	21-Aug	25-Aug	1-Sep	7-Sep	18-Sep	20-Sep	21-Sep	22-Sep	7-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
115.50	114.25	114.30	113.85	114.05	114.30	114.10	114.20	113.90	114.90	114.05	113.85	113.80	113.70	113.70

Gauge Levels of important rivers during season of 2009

North Bengal River

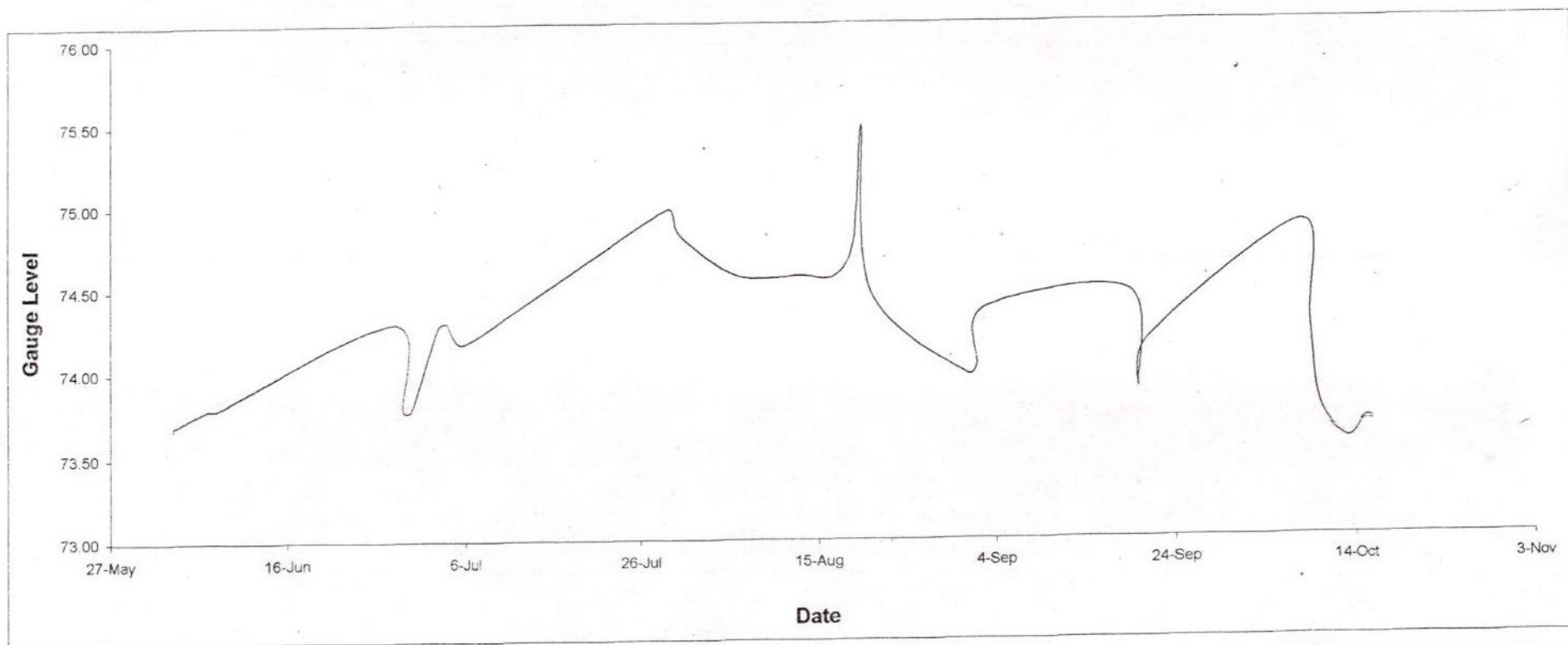
River-Mahananda

Gauge- Sonapur

Extreme Danger Level -76.38 metre

Danger level -75.77 metre

At 6.00 AM



10-Oct	13-Oct	15-Oct	16-Oct	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan
73.78	73.58	73.68	73.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0-Jan	0-Jan	0-Jan	0-Jan	2-Sep	3-Sep	19-Sep	20-Sep	21-Sep	8-Oct	9-Oct	10-Oct	13-Oct	15-Oct	16-Oct
0.00	0.00	0.00	0.00	74.03	74.38	74.48	73.89	74.18	74.88	74.28	73.78	73.58	73.68	73.68

Gauge Levels of important rivers during season of 2009

North Bengal River

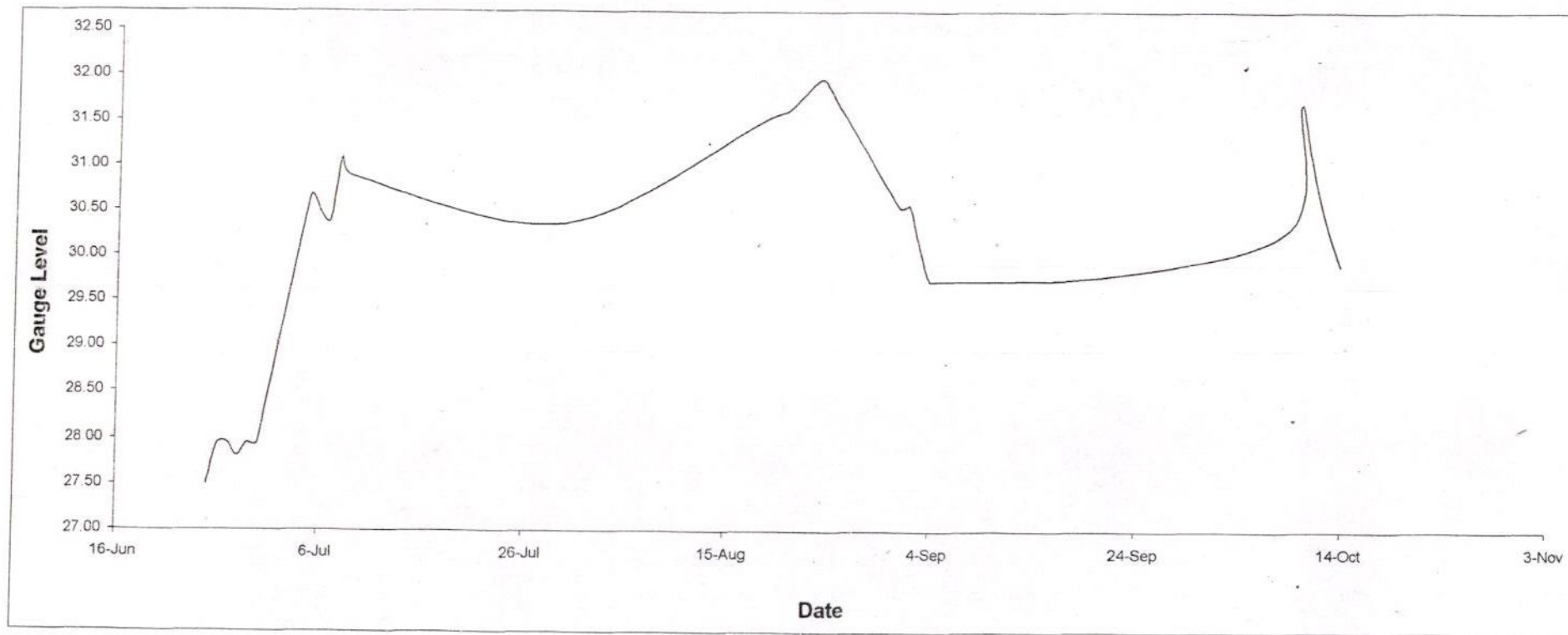
River-Mahananda

Gauge- Jhawa

Extreme Danger Level -32.01 metre

Danger level -31.4 metre

At 6.00 AM

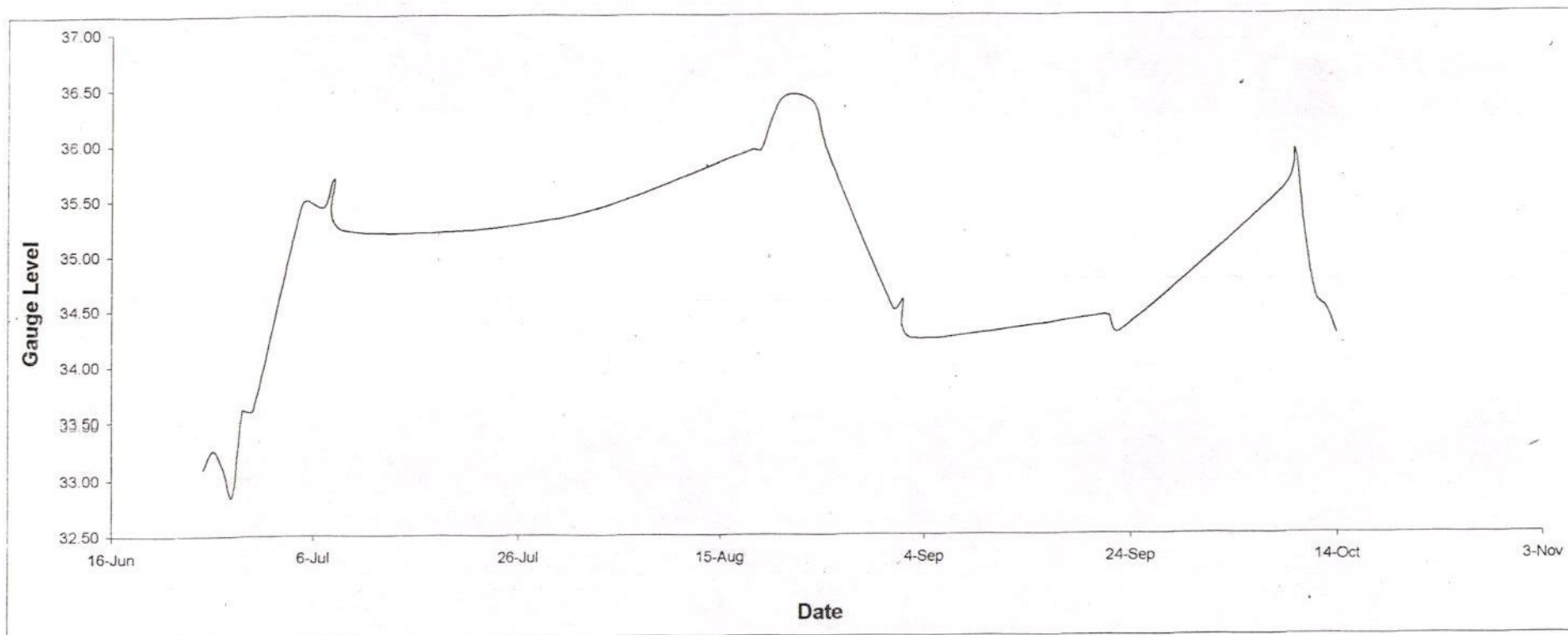


25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	5-Jul	6-Jul	7-Jul	8-Jul	9-Jul	30-Jul	19-Aug	21-Aug	24-Aug
27.50	27.94	27.96	27.81	27.96	27.96	30.66	30.49	30.39	31.08	30.88	30.36	31.52	31.61	31.95
25-Aug	26-Aug	27-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	22-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
31.65	31.65	31.48	30.54	30.56	30.10	29.73	29.73	29.80	30.31	31.66	31.16	30.63	30.21	29.90

Gauge Levels of important rivers during season of 2009

North Bengal River
River-Mahananda
Gauge- Dangraghat

Extreme Danger Level -36.26 metre
Danger level -35.65 metre
At 6.00 AM



25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	4-Jul	5-Jul	7-Jul	8-Jul	9-Jul	30-Jul	18-Aug	19-Aug	21-Aug
33.10	33.27	33.10	32.66	33.80	33.60	35.16	35.49	35.44	35.69	35.23	35.33	35.94	35.94	36.41
24-Aug	25-Aug	26-Aug	1-Sep	2-Sep	3-Sep	21-Sep	22-Sep	23-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
36.38	36.07	35.80	34.51	34.60	34.24	34.44	34.44	34.30	35.60	35.93	35.16	34.62	34.50	34.27

Gauge Levels of important rivers during season of 2009

North Bengal River

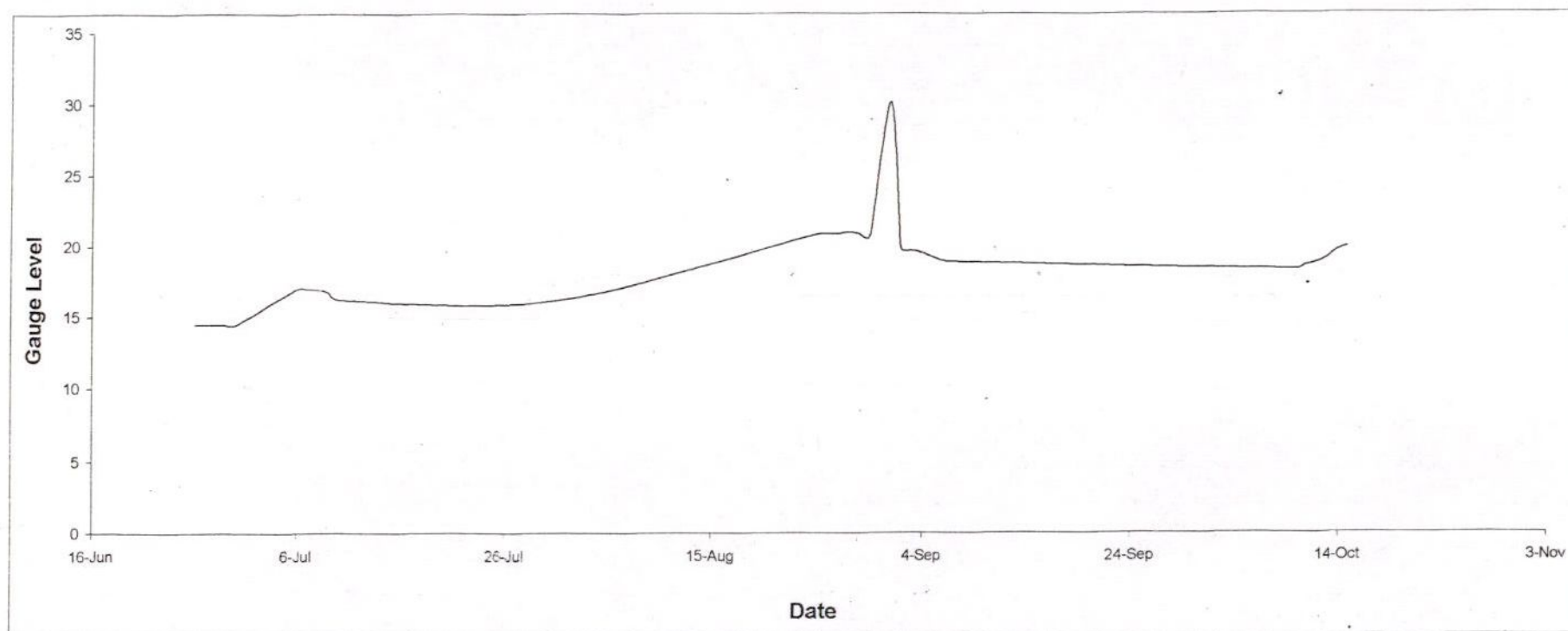
River-Mahananda

Gauge- English Bazar

Extreme Danger Level -23.5 metre

Danger level -22.75 metre

At 6.00 AM



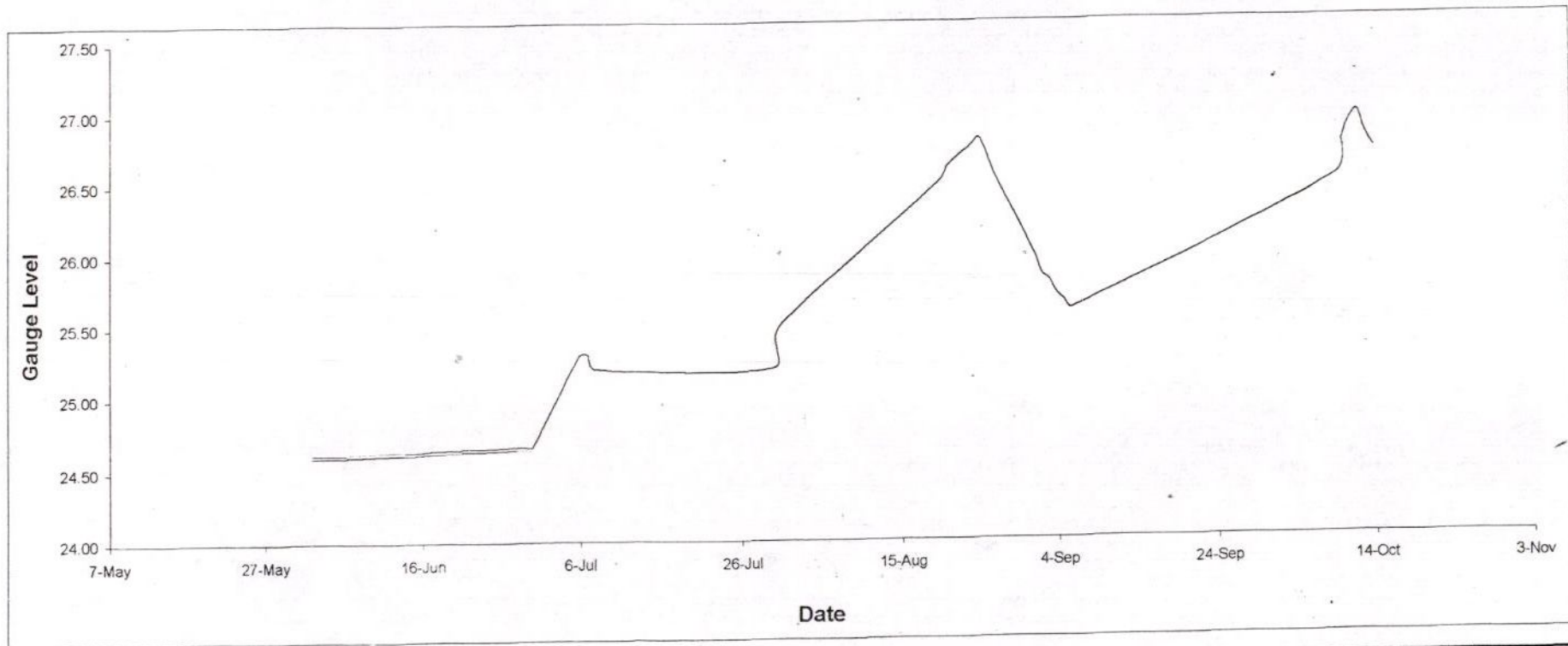
0-Jan	0-Jan	0-Jan	26-Jun	29-Jul	30-Jun	6-Jul	7-Jul	8-Jul	9-Jul	10-Jul	31-Jul	25-Aug	26-Aug	27-Aug
0.00	0.00	0.00	14.48	14.48	14.49	16.98	17.00	16.96	16.80	16.24	16.20	20.75	20.78	20.80
28-Aug	29-Aug	30-Aug	1-Sep	2-Sep	3-Sep	4-Sep	6-Sep	7-Sep	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
20.95	20.83	20.80	20.07	19.83	19.85	19.49	18.94	18.85	18.32	18.60	18.78	19.10	19.64	19.90

Gauge Levels of important rivers during season of 2009

North Bengal River

River-Mahananda
Gauge- Sul/Pajol

Extreme Danger Level -28.0 metre
Danger level -27.43 metre
At 6.00 AM



2-Jun	3-Jun	4-Jun	5-Jun	29-Jun	30-Jun	5-Jul	6-Jul	7-Jul	8-Jul	30-Jul	31-Jul	20-Aug	21-Aug	24-Aug
24.60	24.60	24.60	24.60	24.65	24.65	25.20	25.30	25.30	25.20	25.20	25.50	26.50	26.60	26.75
25-Aug	26-Aug	27-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
26.80	26.70	26.55	26.00	25.55	25.80	25.70	25.65	25.60	26.50	26.75	26.90	26.95	26.80	26.70

Gauge Levels of important rivers during season of 2009

North Bengal River

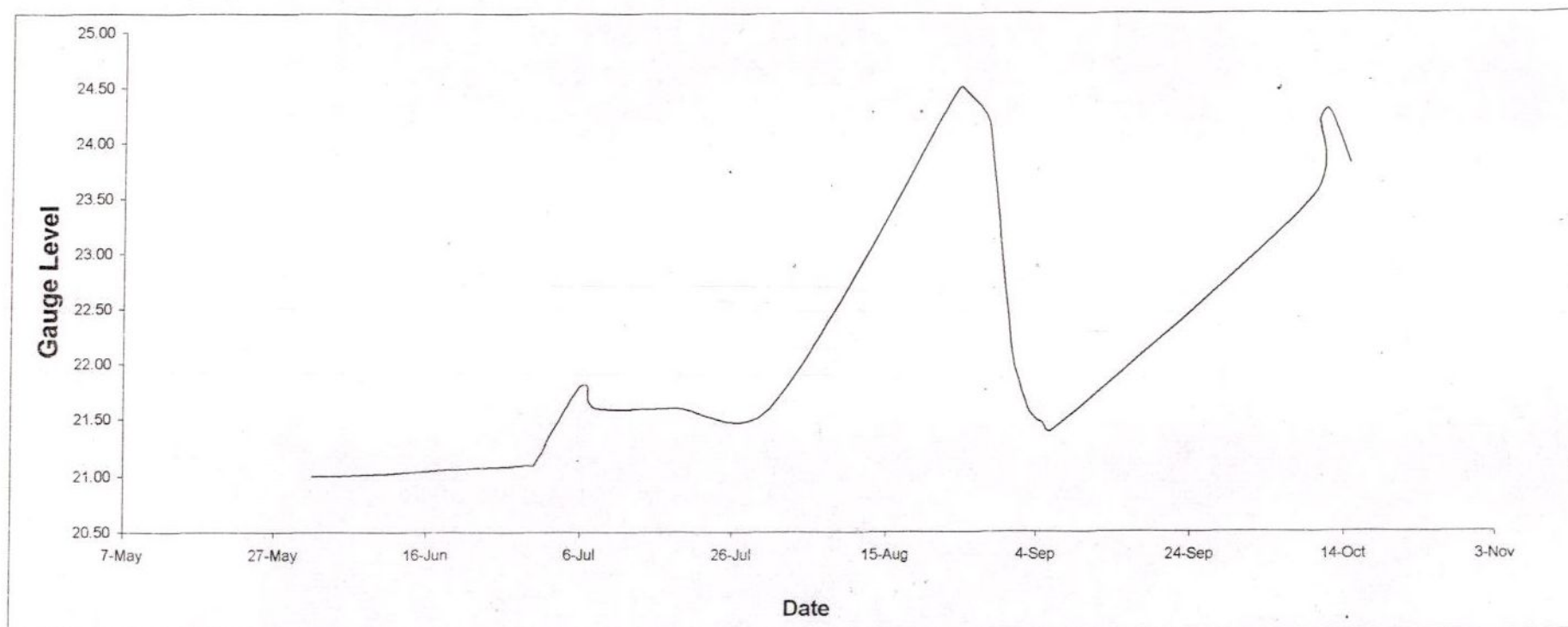
River-Mahananda

Gauge- Sui/Katchua

Extreme Danger Level -26.09 metre

Danger level -25.49 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	29-Jun	30-Jun	5-Jul	6-Jul	7-Jul	8-Jul	19-Jul	31-Jul	24-Aug	25-Aug	26-Aug
21.00	21.00	21.00	21.00	21.10	21.10	21.70	21.80	21.80	21.60	21.60	21.60	24.40	24.50	24.45
27-Aug	28-Aug	29-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
24.38	24.30	24.15	22.10	21.62	21.60	21.50	21.45	21.38	23.50	24.20	24.30	24.18	24.00	23.80

Gauge Levels of important rivers during season of 2009

North Bengal River

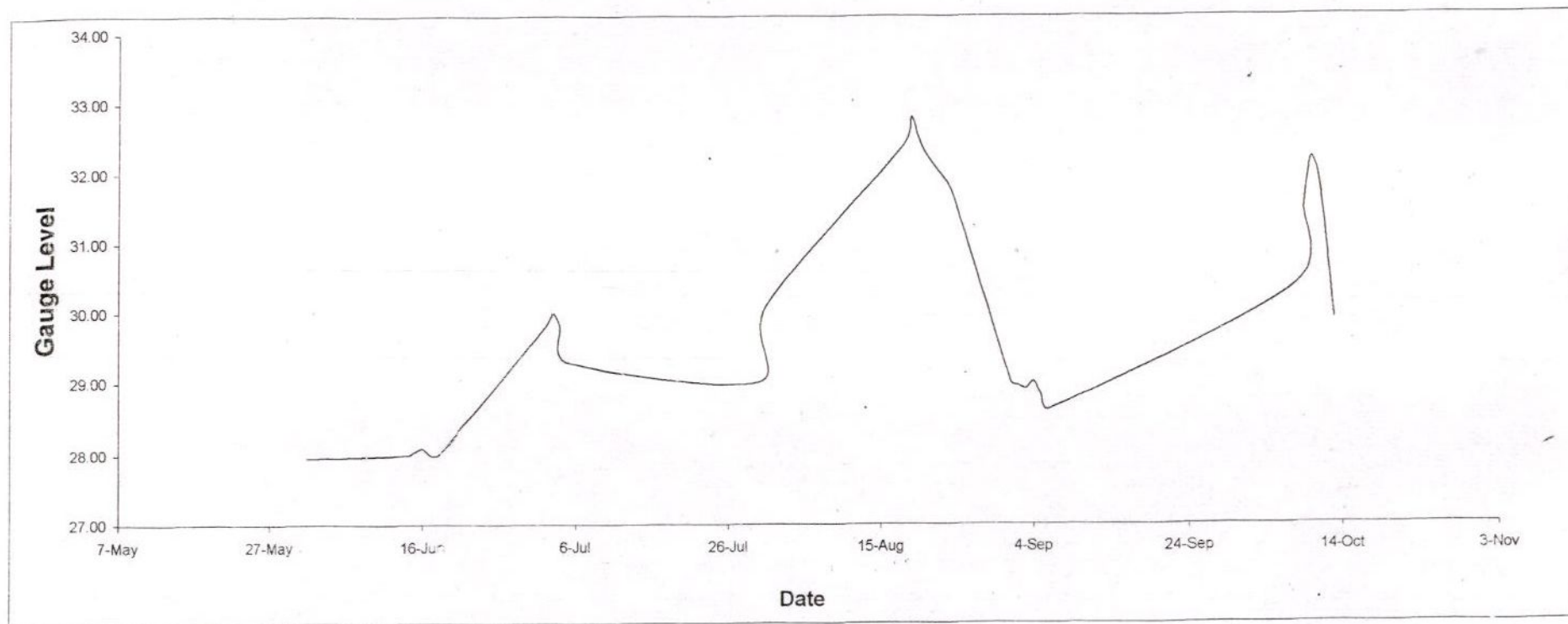
River-Mahananda

Gauge- Tangon / Radhikapur

Extreme Danger Level -34.05 metre

Danger level -33.45 metre

At 6.00 AM



1-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	2-Jul	3-Jul	4-Jul	5-Jul	30-Jul	31-Jul	18-Aug	19-Aug	20-Aug
27.95	28.00	28.05	28.10	28.00	28.00	29.80	30.00	29.80	29.30	29.00	30.10	32.40	32.80	32.50
21-Aug	24-Aug	25-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
32.25	31.80	31.50	29.00	28.85	28.90	29.00	28.80	28.60	30.40	31.50	32.20	31.90	31.00	29.90

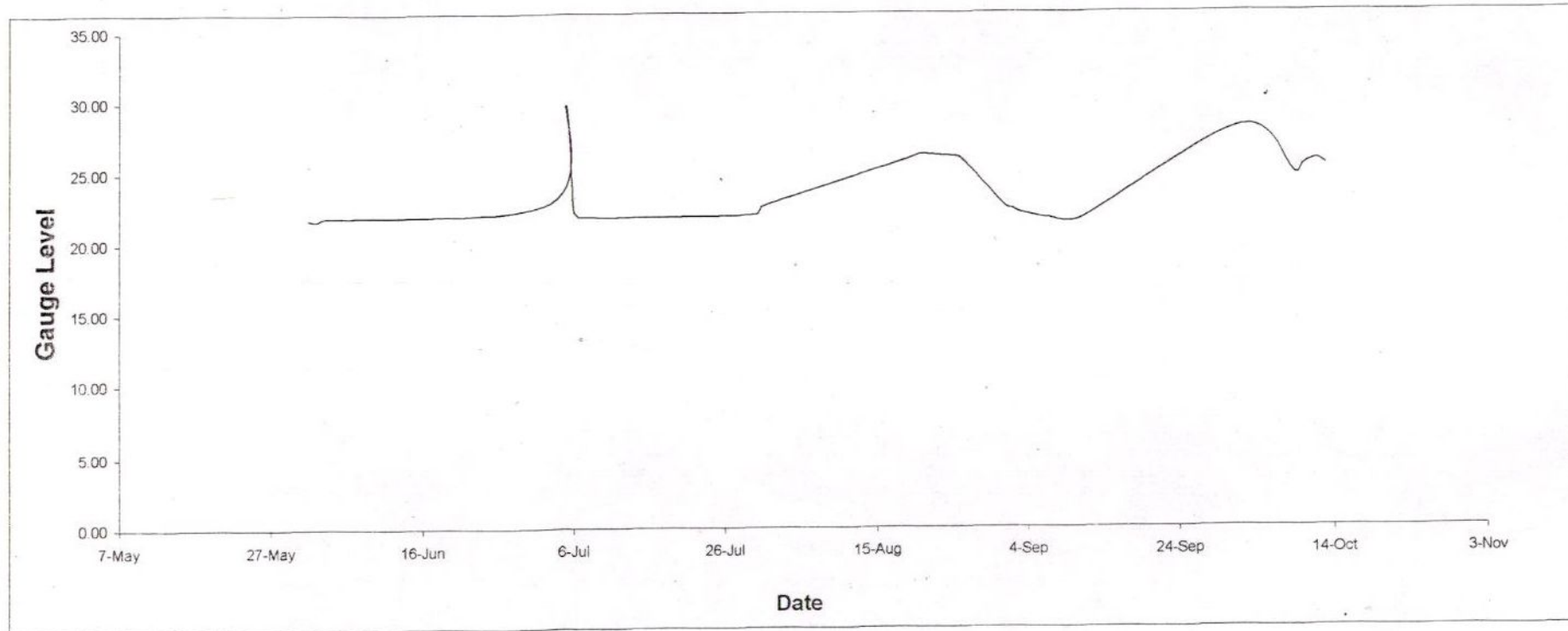
Gauge Levels of important rivers during season of 2009

North Bengal River

River-Mahananda
Gauge- Tangon / Banshihari

G- 6 (i)

Extreme Danger Level -26.21 metre
Danger level -25.6 metre
At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	3-Jul	5-Jul	6-Jul	7-Jul	30-Jul	31-Jul	19-Aug	20-Aug	21-Aug
21.75	21.60	21.85	21.85	21.85	21.85	22.90	29.80	22.40	21.85	22.00	22.60	25.88	26.09	26.22
24-Aug	25-Aug	26-Aug	1-Sep	2-Sep	3-Sep	4-Sep	7-Sep	11-Sep	2-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
26.10	26.05	25.95	22.55	22.35	22.10	21.95	21.70	21.65	28.15	24.80	25.38	25.67	25.75	25.40

Gauge Levels of important rivers during season of 2009

North Bengal River

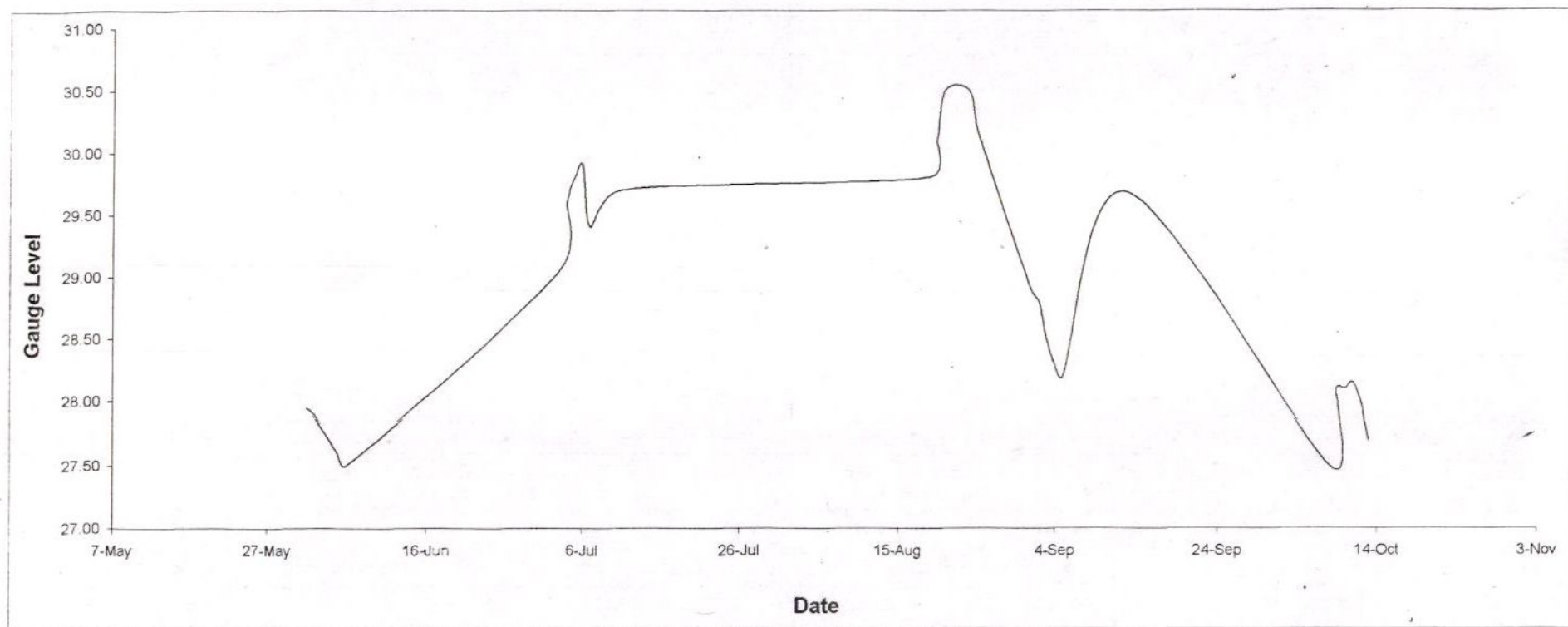
River-Mahananda

Gauge- Nagore/Makdampur

Extreme Danger Level -31.86 metre

Danger level -31.54 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	11-Jul	19-Aug	20-Aug	21-Aug
27.95	27.90	27.80	27.70	27.60	27.50	29.05	29.60	29.80	29.90	29.40	29.70	29.80	30.10	30.50
24-Aug	25-Aug	26-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	13-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
30.50	30.20	30.00	28.90	28.60	28.50	28.30	28.20	29.68	27.50	28.10	28.10	28.15	28.00	27.70

Gauge Levels of important rivers during season of 2009

North Bengal River

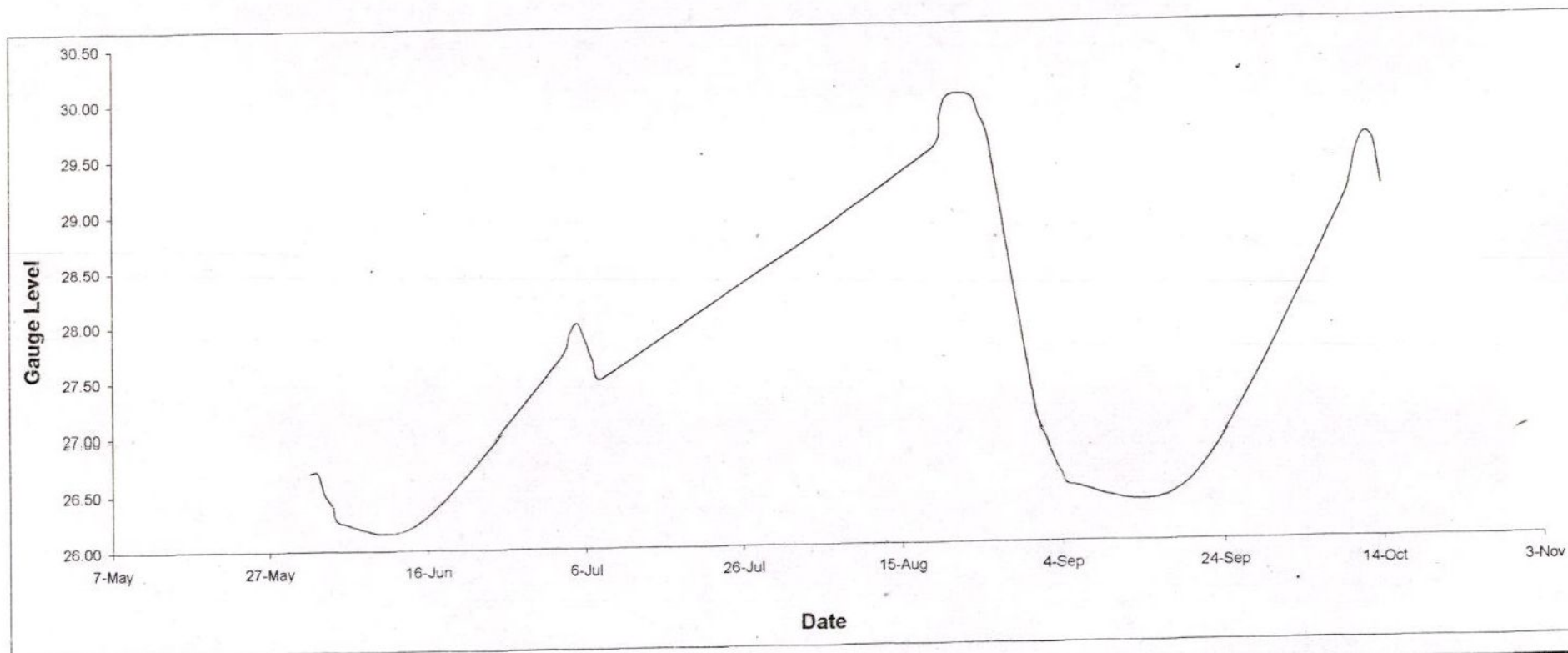
River-Mahananda

Gauge- Kullick-Railway Bridge

Extreme Danger Level -32.69 metre

Danger level -31.2 metre

At 6.00 AM



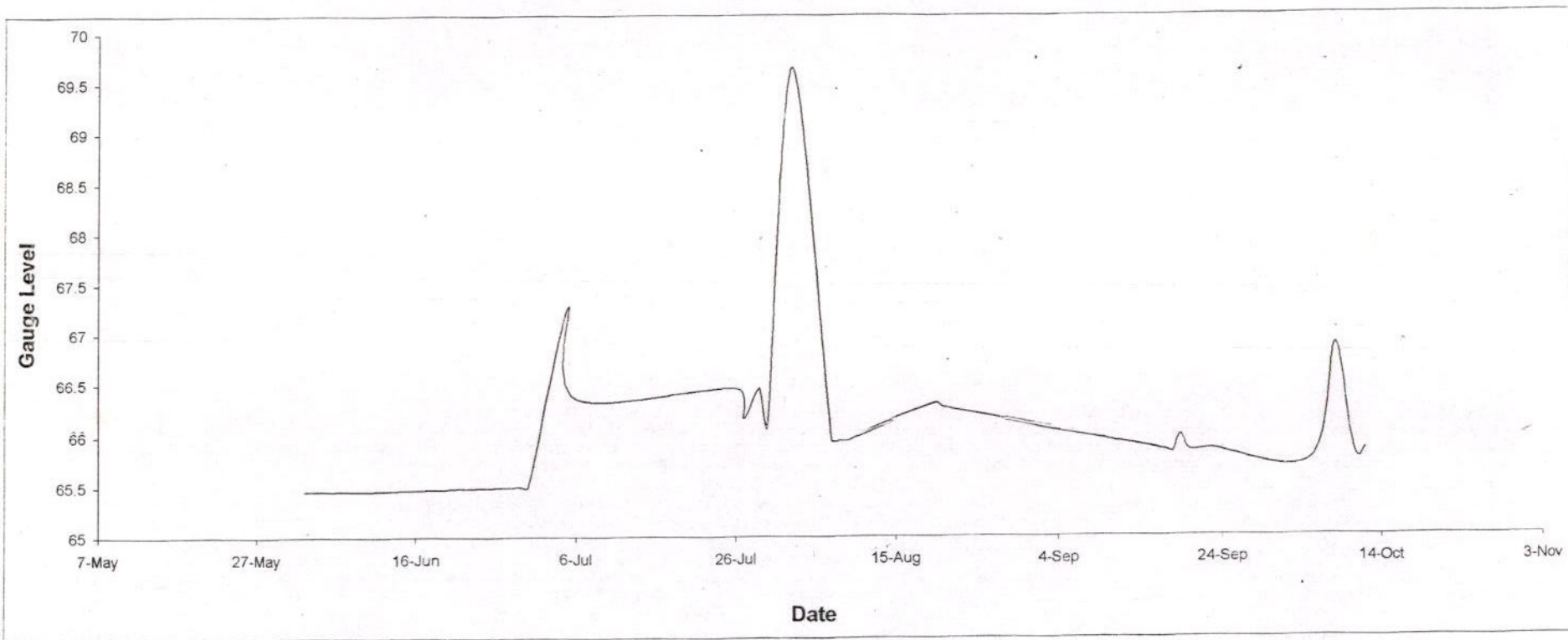
1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	15-Jun	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul	19-Aug	20-Aug	21-Aug
26.70	26.70	26.50	26.40	26.25	26.25	27.70	27.90	28.00	27.85	27.65	27.50	29.52	29.80	30.00
24-Aug	25-Aug	26-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	20-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
30.00	29.82	29.65	27.10	26.95	26.75	26.60	26.50	26.55	29.00	29.20	29.50	29.62	29.55	29.15

Gauge Levels of important rivers during season of 2009

North Bengal River

River-Mahananda
Gauge- Dauk-Chopra

Extreme Danger Level -70.07 metre
Danger level -69.46 metre
At 6.00 AM



2-Jun	4-Jun	5-Jun	12-Jun	29-Jun	30-Jun	5-Jul	6-Jul	26-Jul	27-Jul	29-Jul	30-Jul	2-Aug	7-Aug	8-Aug
65.46	65.46	65.46	65.46	65.50	65.50	67.26	66.36	66.46	66.16	66.46	66.11	69.66	65.96	65.96
9-Aug	20-Aug	21-Aug	17-Sep	18-Sep	19-Sep	20-Sep	22-Sep	23-Sep	5-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
65.96	66.31	66.26	65.86	65.83	66.01	65.85	65.86	65.86	65.76	66.86	66.66	66.06	65.77	65.86

Gauge Levels of important rivers during season of 2009

North Bengal River

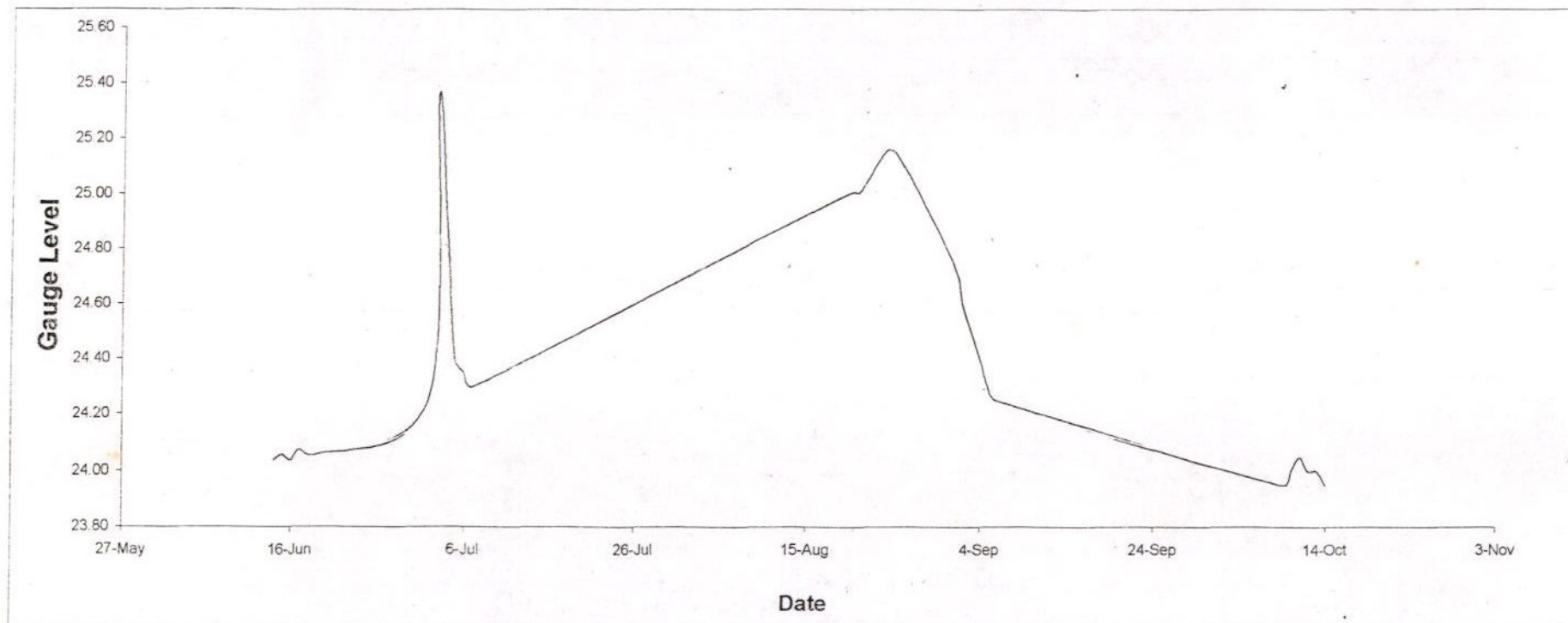
River-Mahananda

Gauge- Gamari-Itahar

Extreme Danger Level -27.41 metre

Danger level -26.82 metre

At 6.00 AM



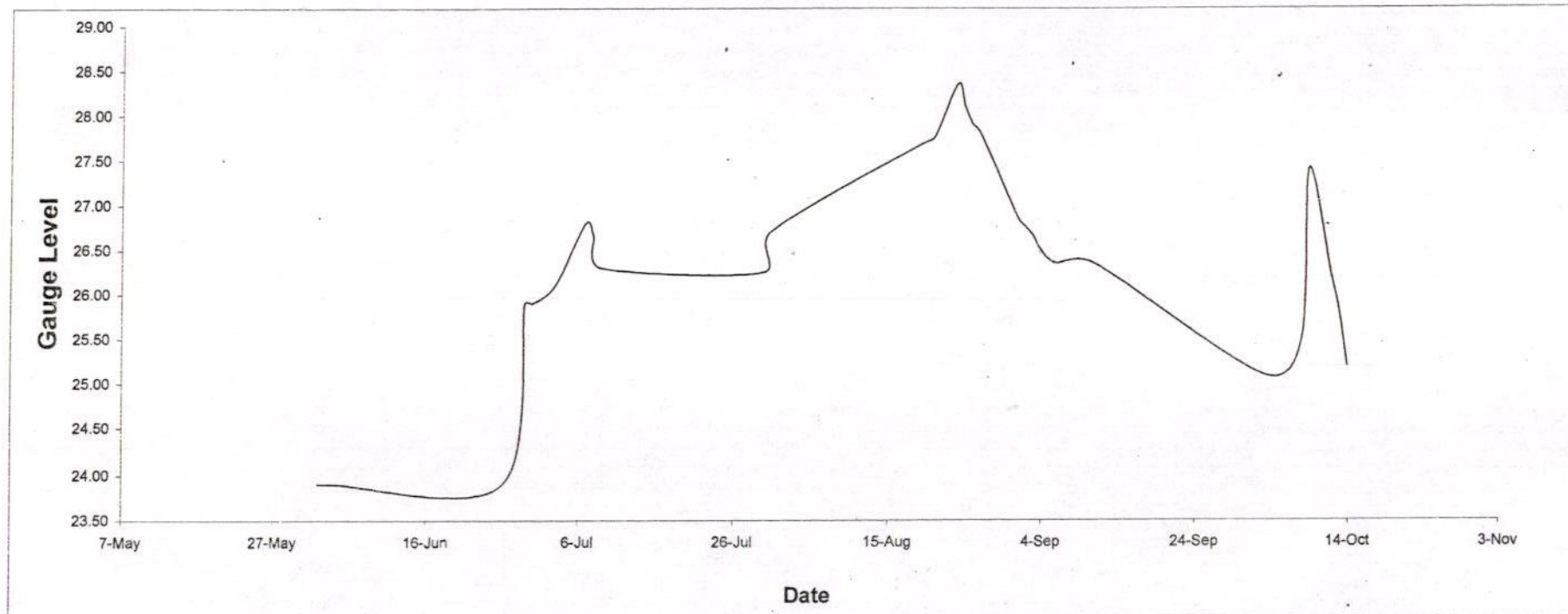
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	20-Aug	21-Aug	24-Aug
24.04	24.06	24.04	24.08	24.06	24.06	24.25	25.35	24.90	24.40	24.35	24.30	25.00	25.00	25.15
25-Aug	26-Aug	27-Aug	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
25.15	25.10	25.05	24.74	24.50	24.50	24.40	24.30	24.25	23.95	24.00	24.05	24.00	24.00	23.95

Gauge Levels of important rivers during season of 2009

North Bengal River

River-Mahananda
Gauge- Fulhar/Teljana(Protected)

Extreme Danger Level -28.35 metre
Danger level -27.43 metre
At 6.00 AM



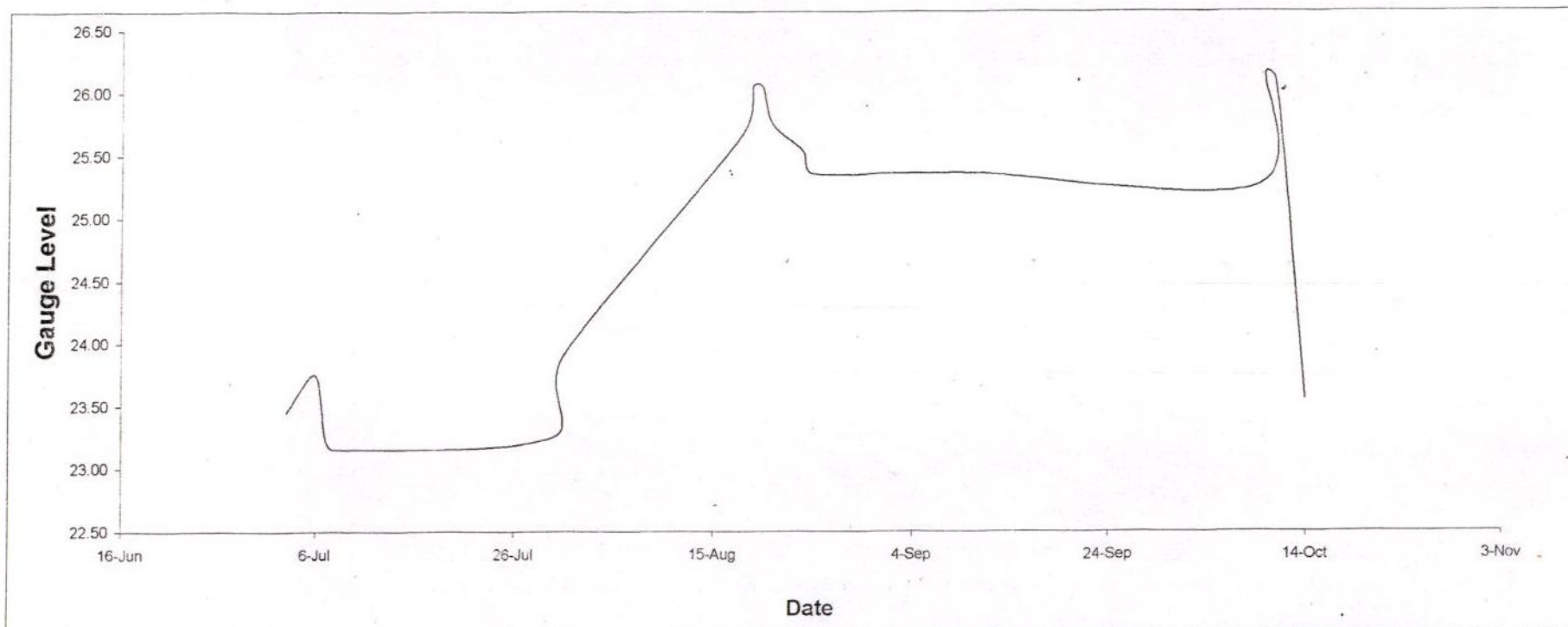
2-Jun	3-Jun	4-Jun	26-Jun	29-Jun	30-Jun	3-Jul	7-Jul	8-Jul	9-Jul	30-Jul	31-Jul	19-Aug	21-Aug	24-Aug
23.90	23.90	23.90	23.90	25.90	25.90	26.10	26.80	26.65	26.30	26.25	26.70	27.66	27.75	28.35
25-Aug	26-Aug	27-Aug	1-Sep	2-Sep	3-Sep	4-Sep	6-Sep	11-Sep	3-Oct	6-Oct	9-Oct	12-Oct	13-Oct	14-Oct
26.10	27.90	27.80	26.65	26.75	26.65	26.50	26.35	26.35	25.10	25.50	27.40	26.20	25.80	25.20

Gauge Levels of important rivers during season of 2009

North Bengal River

River-PUNARBHAVA
Gauge- Gangarampur

Extreme Danger Level -26.42 metre
Danger level -25.82 metre
At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	3-Jul	6-Jul	7-Jul	8-Jul	30-Jul	31-Jul	18-Aug	19-Aug	20-Aug
0.00	0.00	0.00	0.00	0.00	0.00	23.45	23.75	23.25	23.15	23.25	23.90	25.67	26.05	26.05
21-Aug	24-Aug	25-Aug	1-Sep	2-Sep	3-Sep	4-Sep	6-Sep	11-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
25.75	25.53	25.35	25.35	25.35	25.35	25.35	25.35	25.35	25.25	26.15	26.10	25.40	24.50	23.55

Gauge Levels of important rivers during season of 2009

North Bengal River

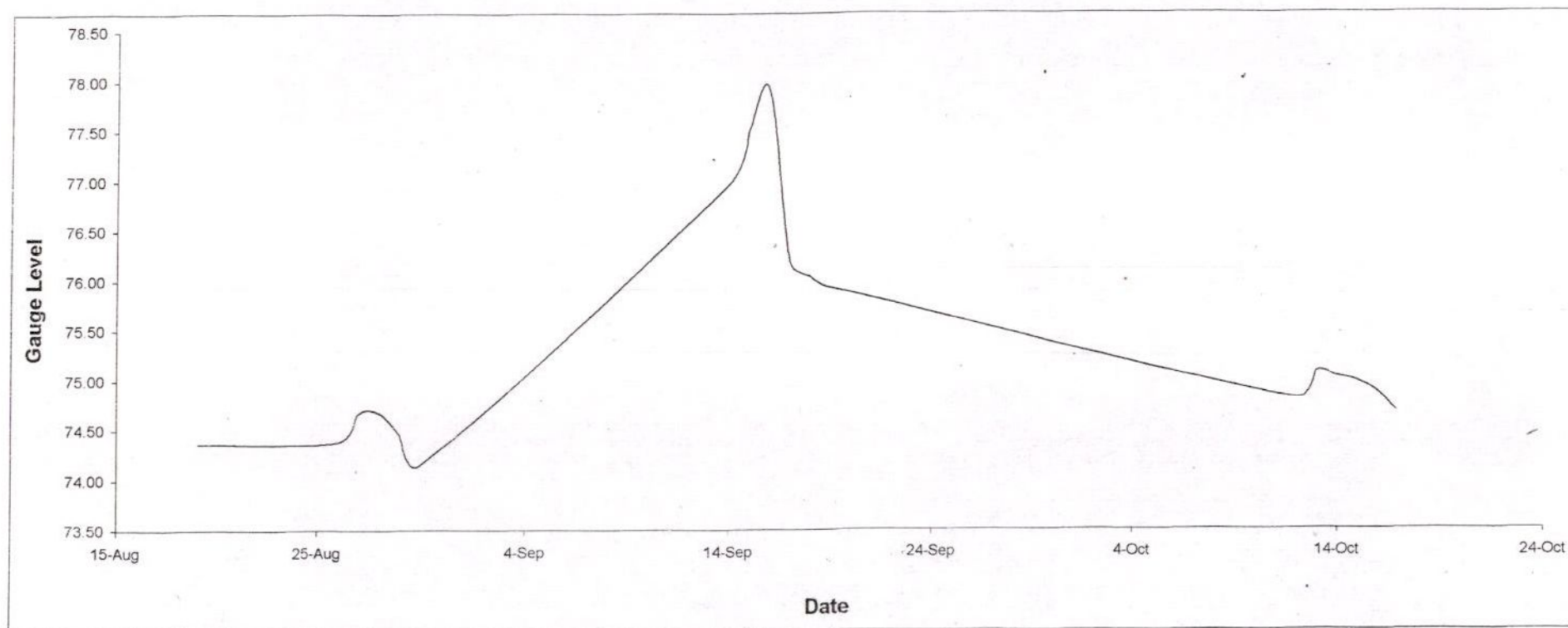
River-Ganga

Gauge- Allahabad

Extreme Danger Level -85.34 metre

Danger level -84.73 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	19-Aug	26-Aug	27-Aug
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.36	74.38	74.67
28-Aug	29-Aug	30-Aug	14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	
74.67	74.45	74.15	76.96	77.50	77.91	76.19	76.04	75.93	74.81	75.07	75.03	74.98	74.88	74.67	

Gauge Levels of important rivers during season of 2009

North Bengal River

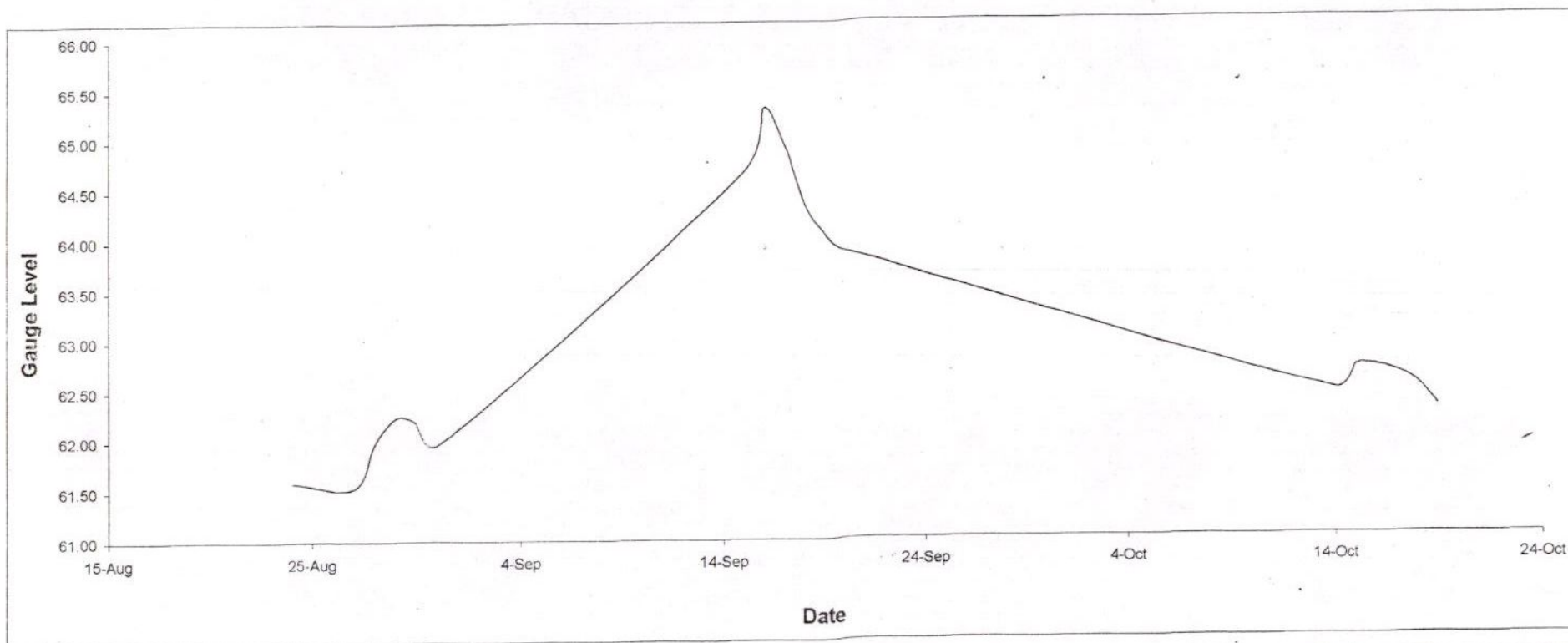
River-Ganga

Gauge- Banaras

Extreme Danger Level -71.87 metre

Danger level -71.26 metre

At 6.00 AM



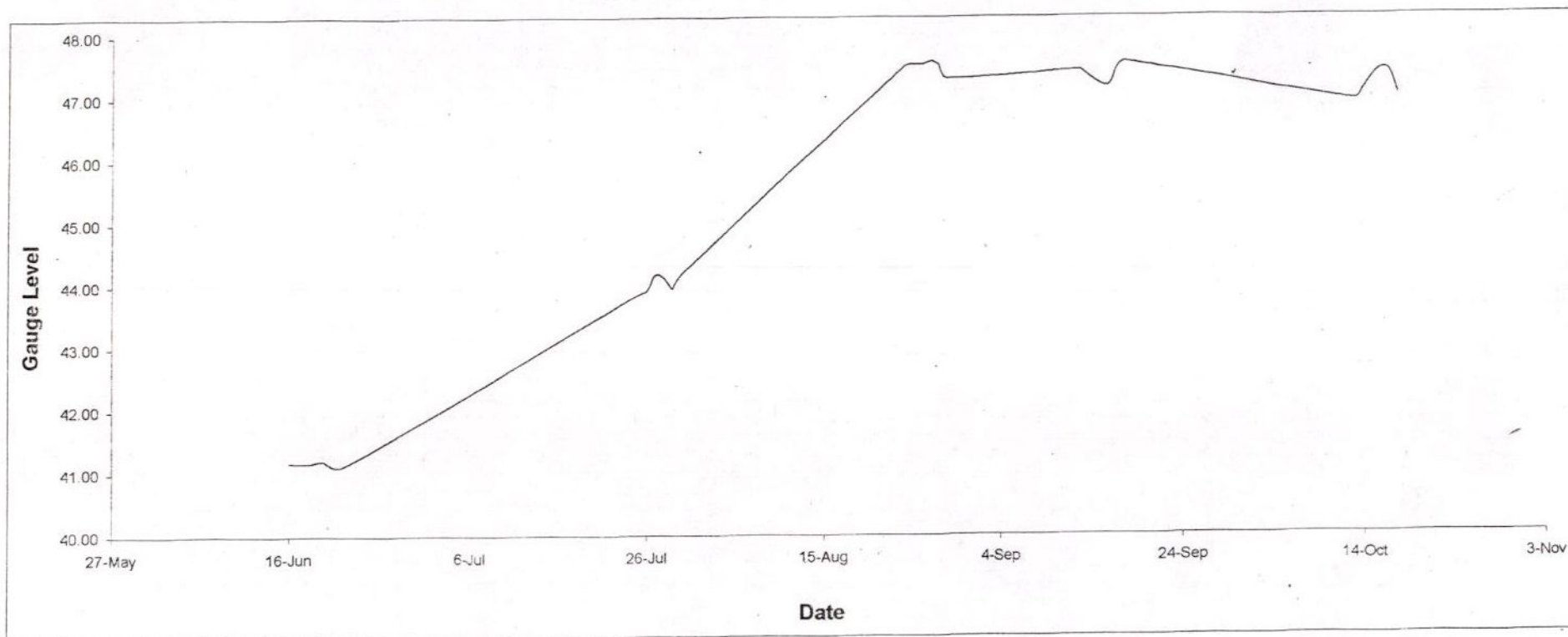
17-Oct	18-Oct	19-Oct	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan
62.62	62.51	62.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0-Jan	0-Jan	0-Jan	0-Jan	2-Sep	3-Sep	19-Sep	20-Sep	21-Sep	8-Oct	9-Oct	10-Oct	13-Oct	15-Oct	16-Oct
0.00	0.00	0.00	0.00	74.03	74.38	74.48	73.89	74.18	74.88	74.28	73.78	73.58	73.68	73.68

Gauge Levels of important rivers during season of 2009

North Bengal River

River-Ganga
Gauge- Patna

Extreme Danger Level -49.21 metre
Danger level -48.6 metre
At 6.00 AM



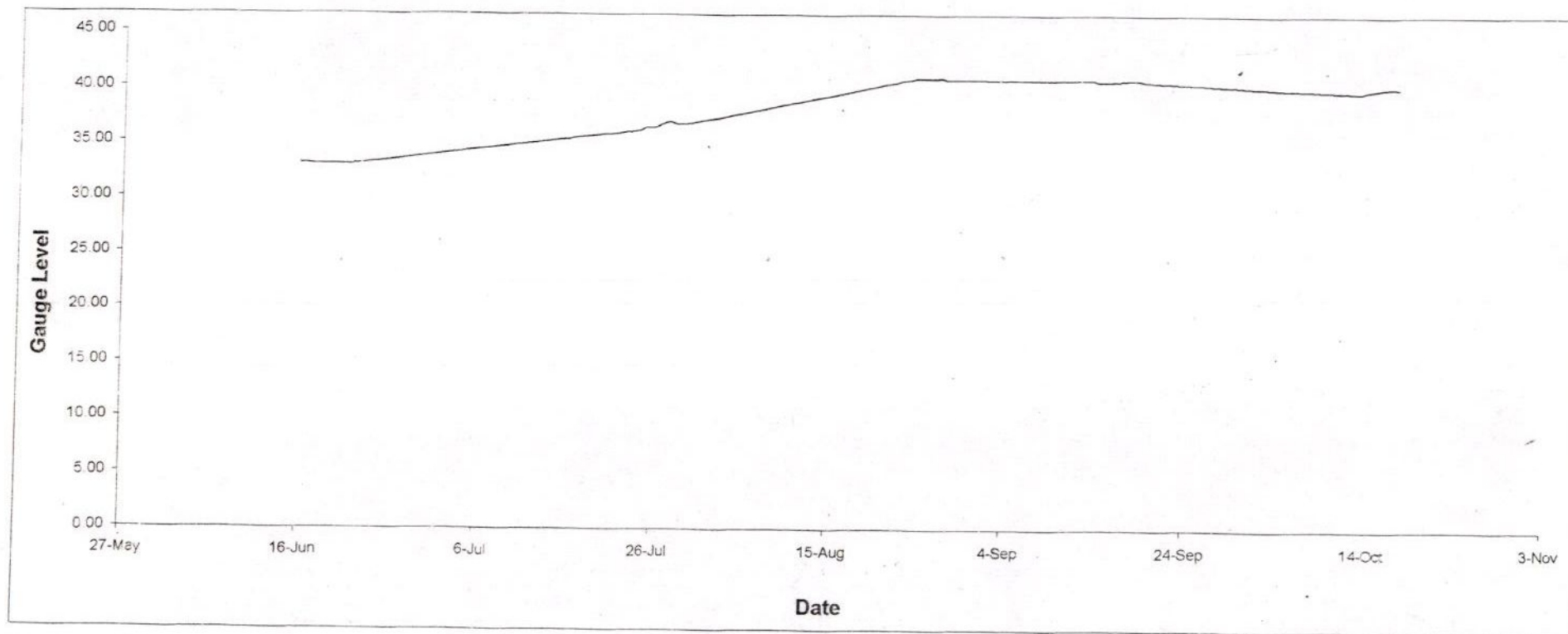
16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	22-Jun	24-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	24-Aug	25-Aug	26-Aug
41.18	41.16	41.16	41.19	41.20	41.12	43.77	43.91	44.17	44.12	43.95	44.18	47.49	47.52	47.52
27-Aug	28-Aug	29-Aug	12-Sep	13-Sep	14-Sep	16-Sep	17-Sep	18-Sep	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct
47.57	47.51	47.30	47.42	47.42	47.31	47.16	47.44	47.55	46.93	47.08	47.27	47.42	47.38	47.02

North Bengal River

River-Ganga
Gauge- Hatidah

Gauge Levels of important rivers during season of 2009

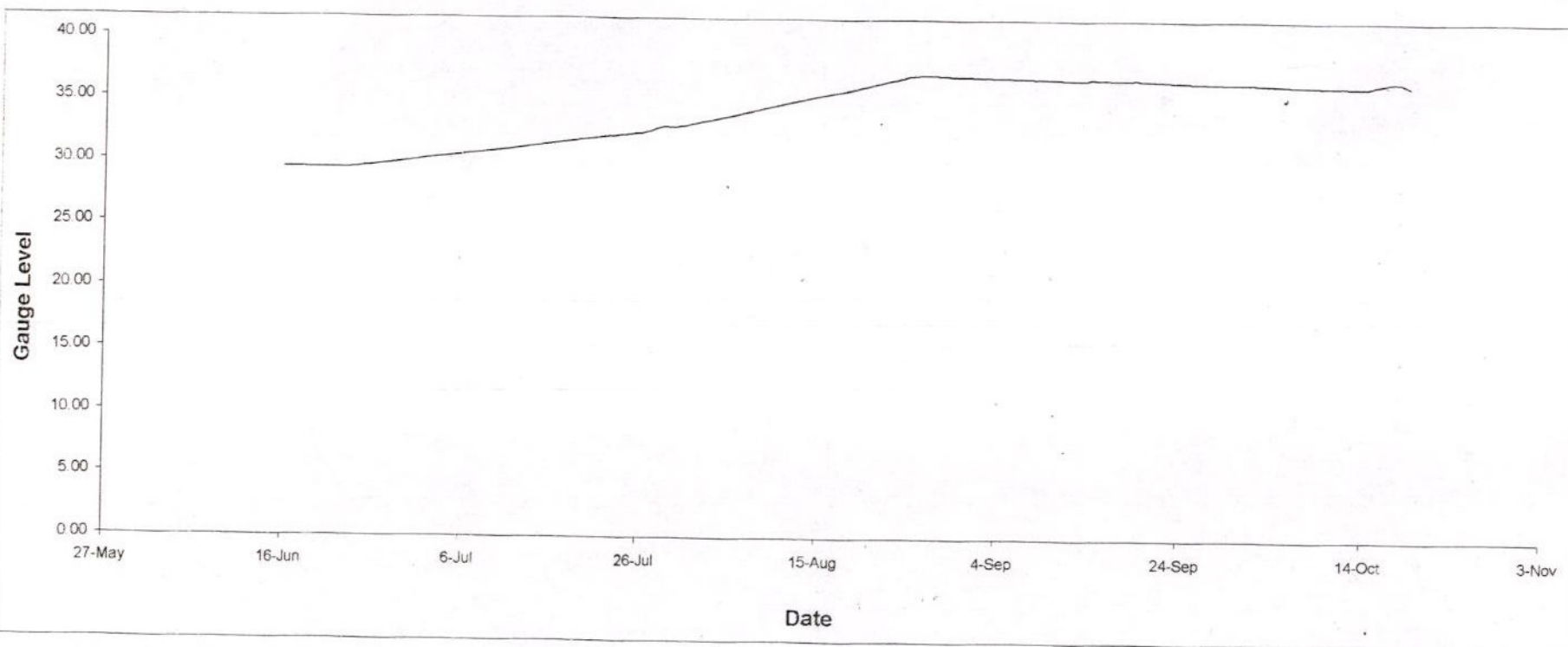
Extreme Danger Level -42.37 metre
Danger level -41.76 metre
At 6.00 AM



16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	22-Jun	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	30-Jul	24-Aug	25-Aug	26-Aug
33.05	33.01	32.93	32.91	32.92	32.95	36.04	36.32	36.32	36.66	36.86	36.73	40.73	40.85	40.85
27-Aug	28-Aug	29-Aug	13-Sep	14-Sep	15-Sep	18-Sep	19-Sep	20-Sep	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct
40.85	40.91	40.77	40.71	40.72	40.57	40.72	40.73	40.57	39.65	39.82	39.97	40.11	40.21	40.10

North Bengal River

Gauge Levels of important rivers during season of 2009

River--Ganga
Gauge- MungerExtreme Danger Level -39.94 metre
Danger level -39.33 metre
At 6.00 AM

16-Jun	17-Jun	18-Jun	19-Jun	22-Jun	23-Jun	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	24-Aug	25-Aug	26-Aug
29.41	29.41	29.41	29.34	29.34	29.35	32.25	32.30	32.48	32.74	32.85	32.79	36.75	36.92	37.02
27-Aug	28-Aug	29-Aug	13-Sep	14-Sep	15-Sep	18-Sep	19-Sep	20-Sep	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct
37.03	37.04	36.99	36.72	36.60	36.75	36.70	36.77	36.86	36.23	36.41	36.55	36.68	36.83	36.34

Gauge Levels of important rivers during season of 2009

North Bengal River

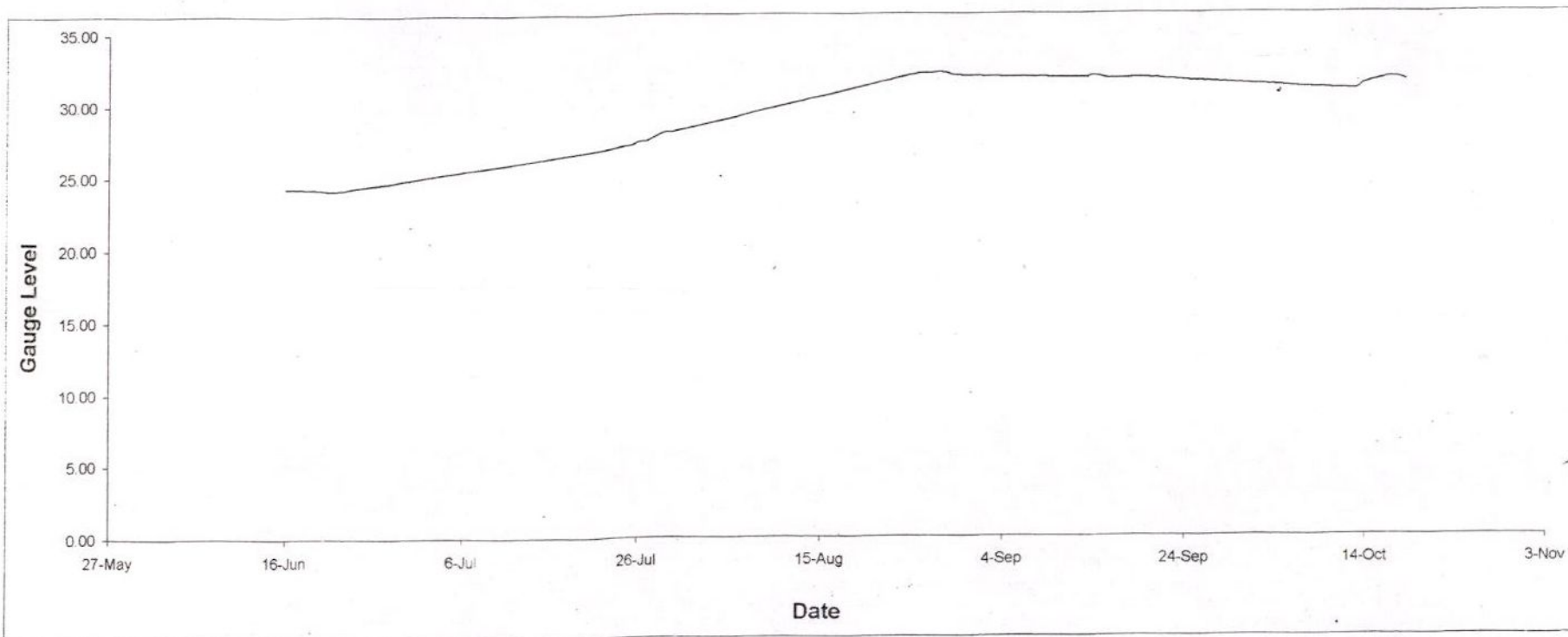
River-Ganga

Gauge- Bhagalpur

Extreme Danger Level -34.29 metre

Danger level -33.68 metre

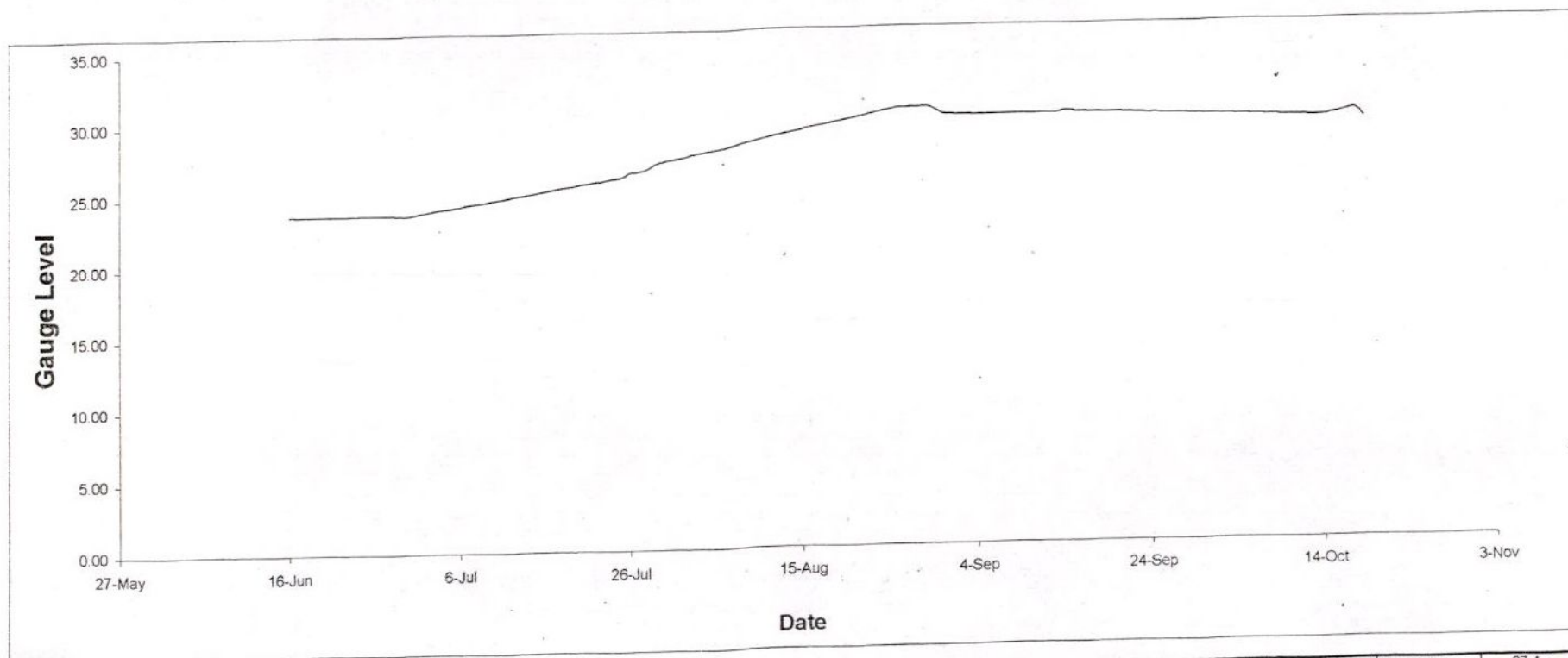
At 6.00 AM



16-Jun	17-Jun	18-Jun	19-Jun	20-Jun	22-Jun	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	25-Aug	26-Aug	27-Aug
24.33	24.30	24.27	24.23	24.20	24.17	27.22	27.46	27.52	27.84	28.11	28.15	31.99	32.10	32.11
28-Aug	29-Aug	30-Aug	13-Sep	14-Sep	15-Sep	16-Sep	19-Sep	20-Sep	13-Oct	14-Oct	16-Oct	17-Oct	18-Oct	19-Oct
32.17	32.13	31.96	31.79	31.90	31.87	31.73	31.76	31.75	30.90	31.25	31.61	31.74	31.74	31.52

Gauge Levels of important rivers during season of 2009

North Bengal River

River-Ganga
Gauge- KalagaonExtreme Danger Level -31.7 metre
Danger level -31.09 metre
At 6.00 AM

16-Jun	19-Jun	27-Jun	28-Jun	29-Jun	30-Jun	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	25-Aug	26-Aug	27-Aug
23.76	23.71	23.73	23.75	23.72	23.72	26.11	26.40	26.48	26.61	26.94	27.15	30.43	30.57	30.57
28-Aug	29-Aug	30-Aug	1-Sep	13-Sep	14-Sep	15-Sep	16-Sep	20-Sep	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct
30.59	30.59	30.56	30.04	29.88	30.14	30.14	30.04	29.99	29.50	29.61	29.70	29.86	29.92	29.34

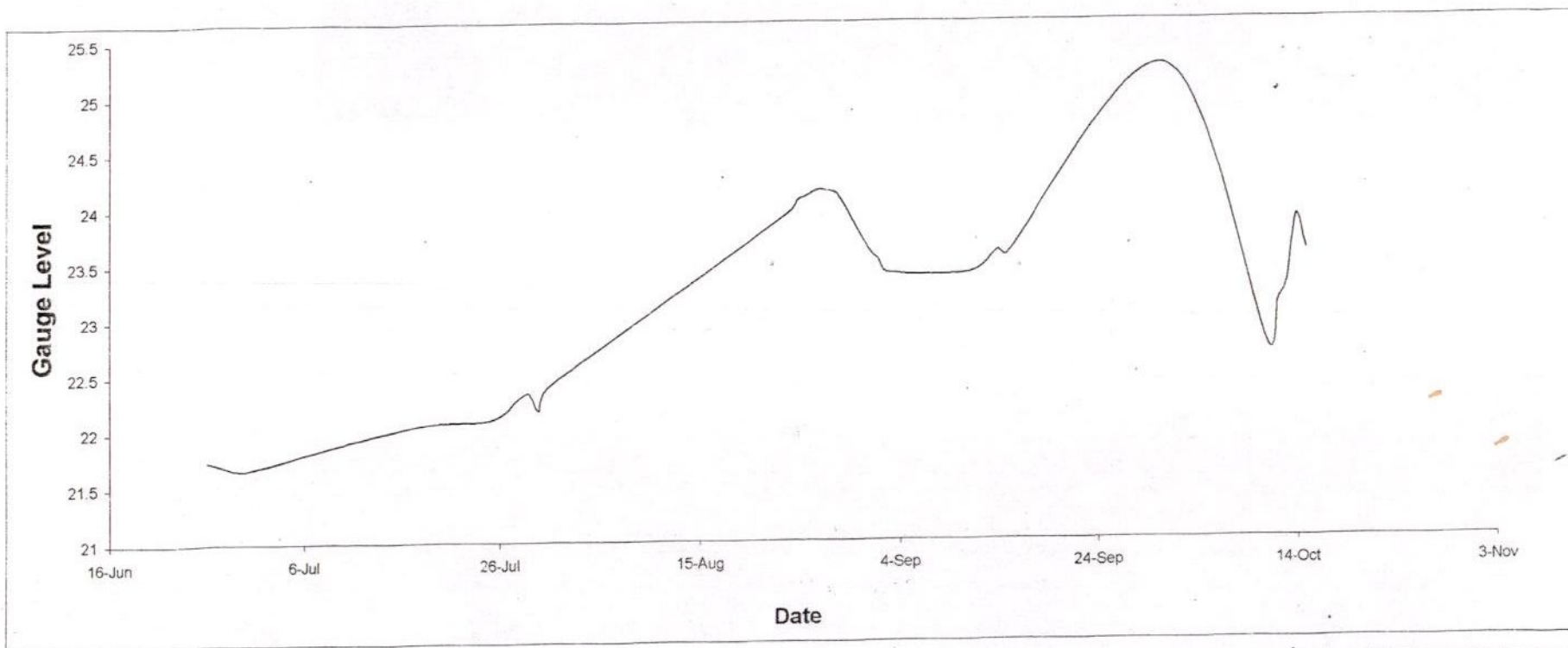
Gauge Levels of important rivers during season of 2009

North Bengal River

River-Ganga

Gauge- Manikchakghat

Extreme Danger Level -25.3 metre
Danger level -24.69 metre
At 6.00 AM



0-Jan	0-Jan	0-Jan	26-Jun	29-Jun	30-Jun	17-Jul	25-Jul	28-Jul	29-Jul	30-Jul	31-Jul	24-Aug	25-Aug	26-Aug
0.00	0.00	0.00	21.74	21.66	21.66	22.04	22.10	22.30	22.34	22.18	22.40	23.94	24.06	24.10
27-Aug	28-Aug	29-Aug	1-Sep	2-Sep	3-Sep	11-Sep	14-Sep	15-Sep	1-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
24.15	24.14	24.10	23.62	23.52	23.40	23.40	23.60	23.56	25.25	22.72	23.10	23.30	23.88	23.58

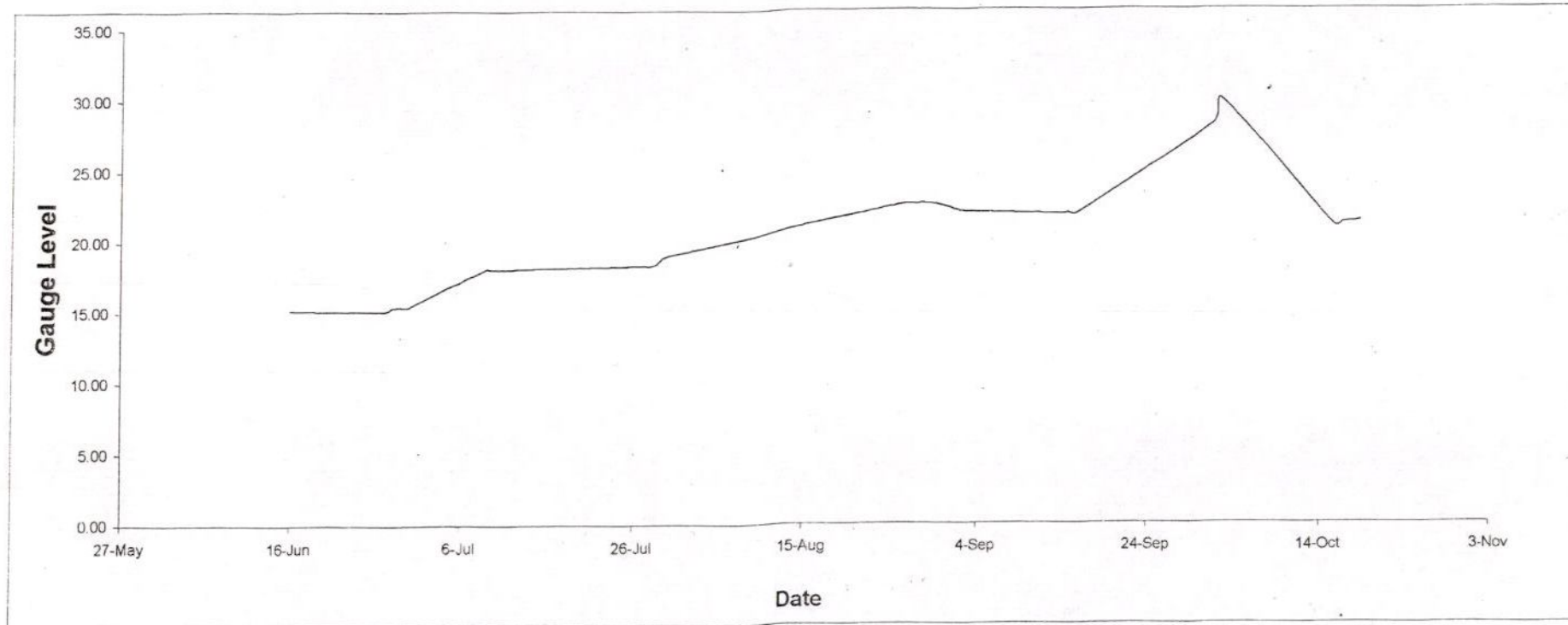
Gauge Levels of important rivers during season of 2009

North Bengal River

River-Ganga
Gauge- Farakka

G- 9 (i)

Extreme Danger Level -22.85 metre
Danger level -22.25 metre
At 6.00 AM



16-Jun	17-Jun	27-Jun	28-Jun	29-Jun	30-Jun	9-Jul	10-Jul	27-Jul	28-Jul	29-Jul	30-Jul	26-Aug	27-Aug	28-Aug
15.19	15.16	15.12	15.41	15.45	15.45	18.11	18.07	18.30	18.24	18.43	18.95	22.46	22.54	22.56
29-Aug	30-Aug	31-Aug	1-Sep	2-Sep	3-Sep	14-Sep	15-Sep	16-Sep	2-Oct	3-Oct	16-Oct	17-Oct	18-Oct	19-Oct
22.58	22.54	22.44	22.26	22.10	21.96	21.83	21.89	21.87	28.17	29.85	20.98	21.14	21.18	21.30

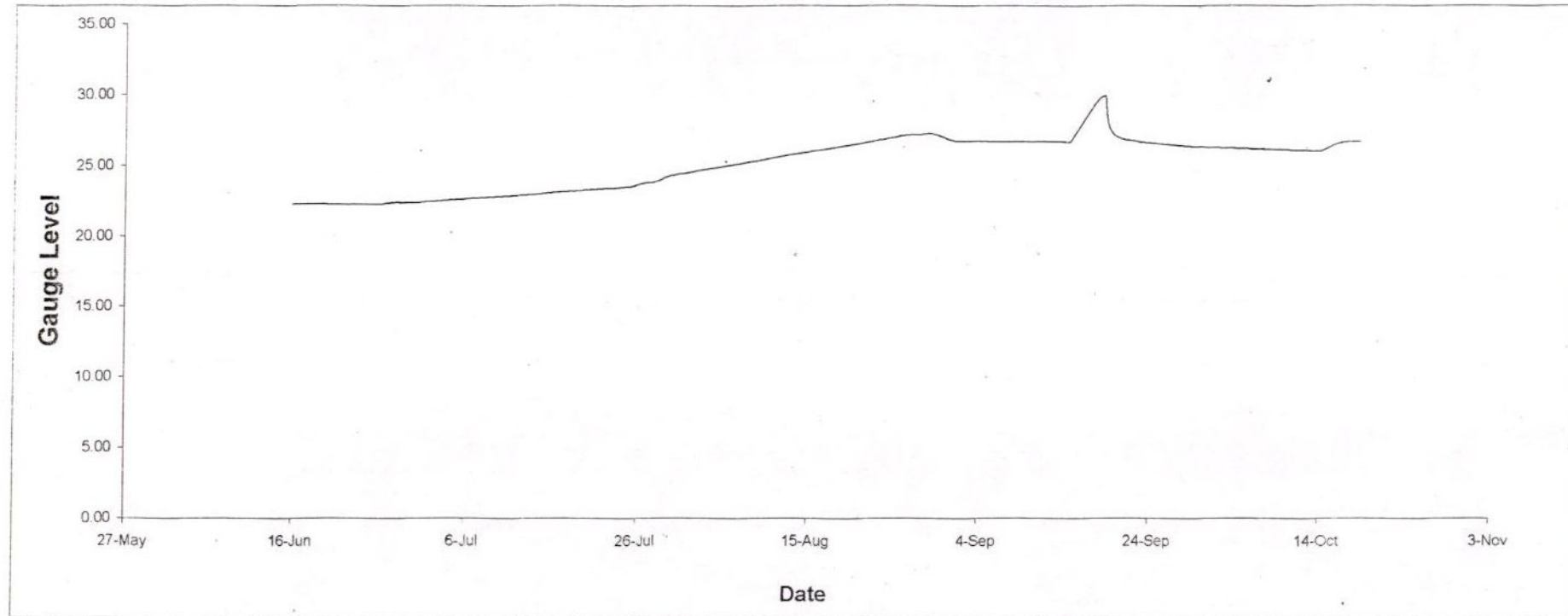
Gauge Levels of important rivers during season of 2009

North Bengal River

River-Ganga
Gauge- Sahibganj

Extreme Danger Level -22.85 metre
Danger level -27.25 metre
At 6.00 AM

G- 9 (j)



16-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	25-Aug	26-Aug	27-Aug
22.22	22.21	22.29	22.34	22.32	22.32	23.45	23.61	23.75	23.78	23.96	24.24	26.91	27.02	27.10
28-Aug	29-Aug	30-Aug	1-Sep	2-Sep	14-Sep	15-Sep	19-Sep	21-Sep	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct
27.11	27.19	27.14	27.72	26.64	26.60	26.62	29.69	28.83	26.00	26.13	26.44	26.59	26.66	26.67

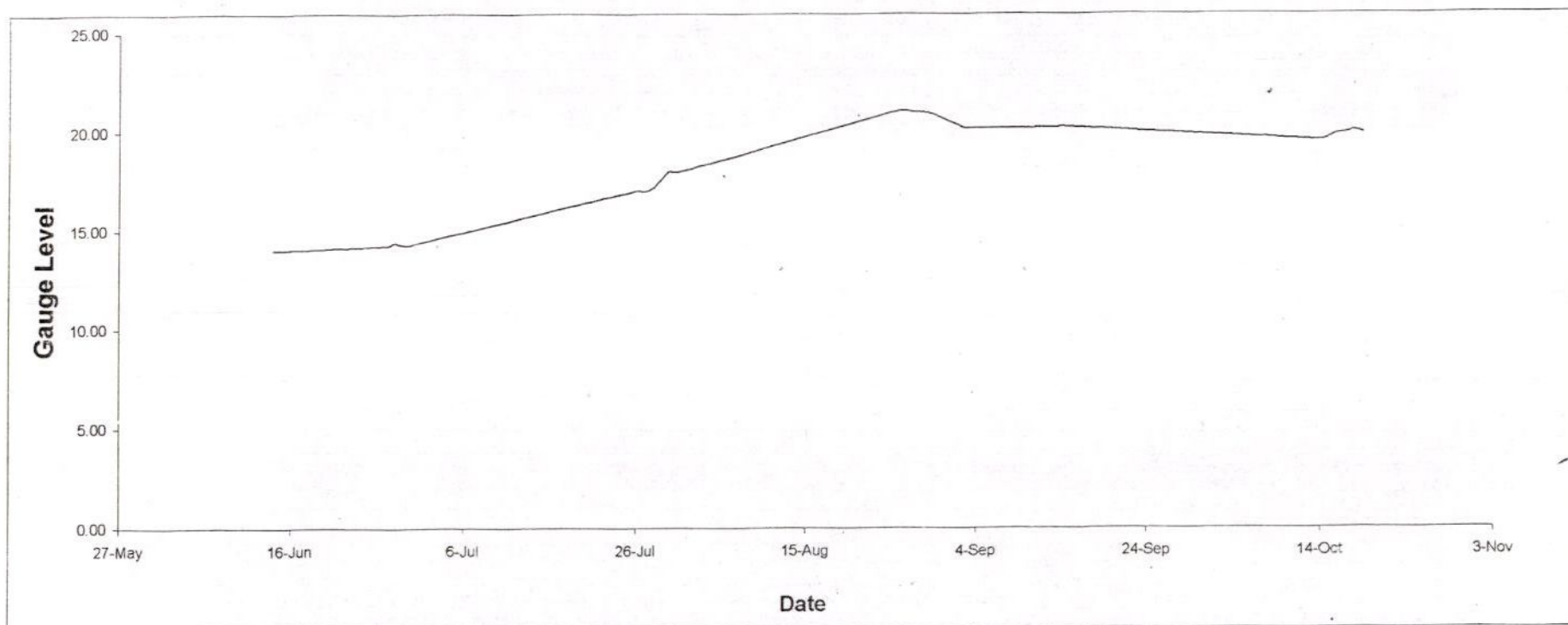
North Bengal River

River-Ganga
Gauge- Nimitita

Gauge Levels of important rivers during season of 2009

G-9 (K)

Extreme Danger Level -22.51 metre
Danger level -21.9 metre
At 6.00 AM



14-Jun	15-Jun	27-Jun	28-Jun	29-Jun	30-Jun	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	25-Aug	26-Aug	27-Aug
14.04	14.04	14.25	14.43	14.31	14.31	17.00	16.97	17.13	17.53	17.98	17.92	20.93	21.01	21.01
28-Aug	29-Aug	30-Aug	1-Sep	2-Sep	3-Sep	13-Sep	14-Sep	15-Sep	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct
20.98	20.93	20.85	20.47	20.30	20.14	20.17	20.22	20.20	19.54	19.64	19.84	19.89	19.99	19.85

Gauge Levels of important rivers during season of 2009

North Bengal River

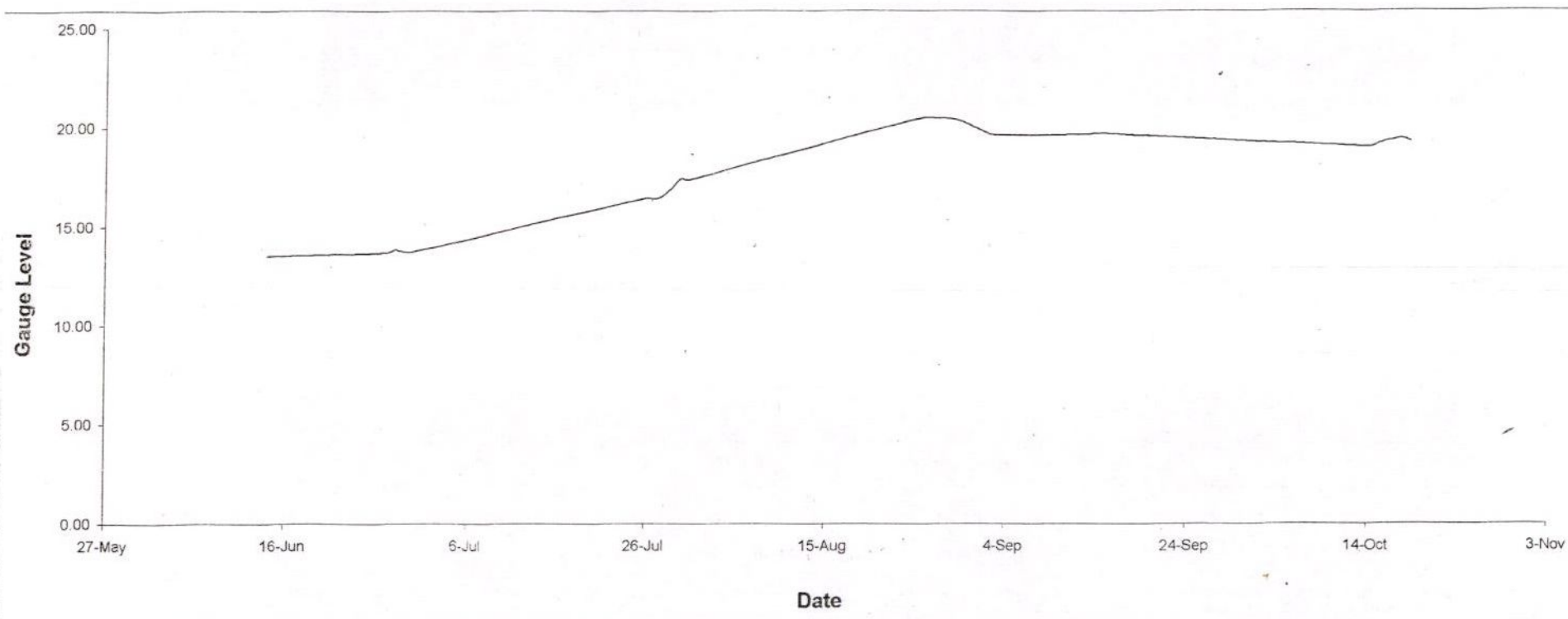
River-Ganga-Padma

Gauge-Nurpur

Extreme Danger Level -21.64 metre

Danger level -21.03 metre

At 6.00 AM



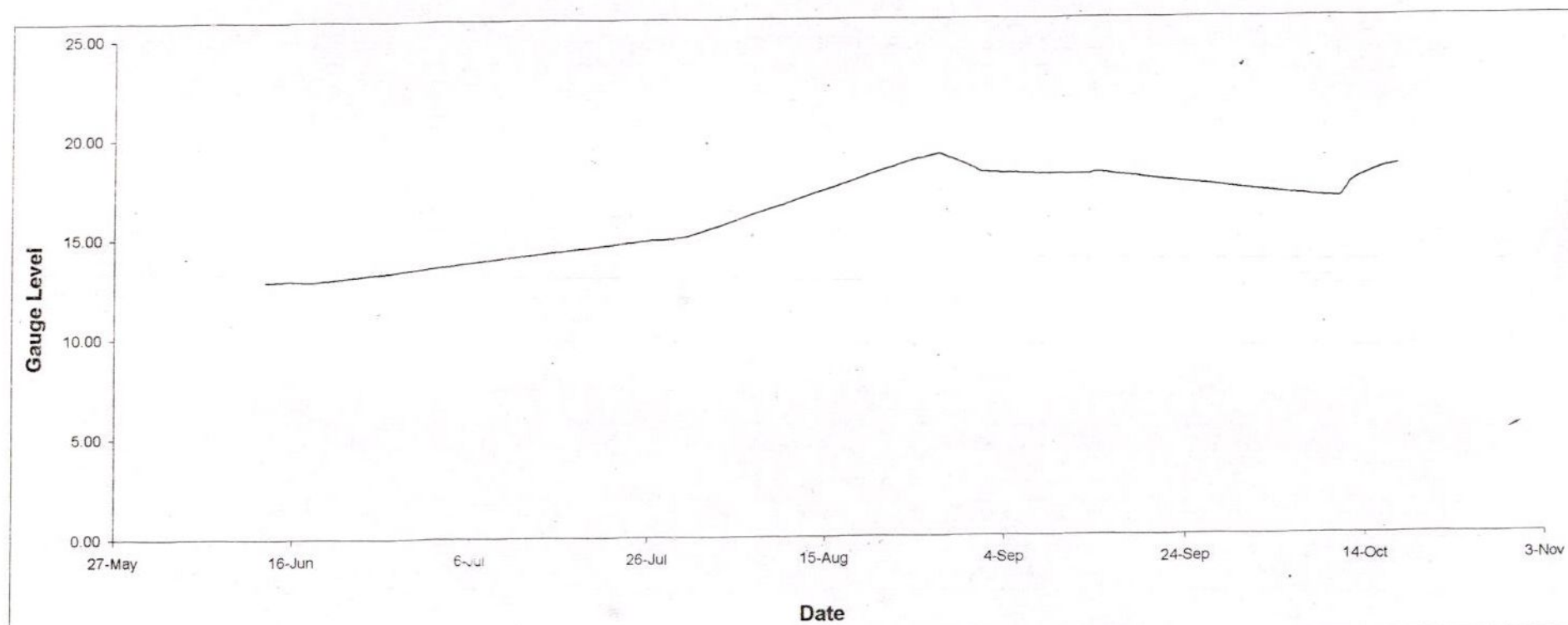
14-Jun	15-Jun	27-Jun	28-Jun	29-Jun	30-Jun	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	25-Aug	26-Aug	27-Aug
13.52	13.52	13.68	13.85	13.75	13.75	16.41	16.39	16.54	16.96	17.43	17.38	20.39	20.48	20.48
28-Aug	29-Aug	30-Aug	1-Sep	2-Sep	3-Sep	13-Sep	14-Sep	15-Sep	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct
20.46	20.42	20.32	19.92	19.74	19.59	19.62	19.66	19.67	19.00	19.10	19.28	19.37	19.44	19.29

Gauge Levels of important rivers during season of 2009

North Bengal River

River-Ganga
Gauge- Geria

Extreme Danger Level -21.55 metre
Danger level -20.94 metre
At 6.00 AM



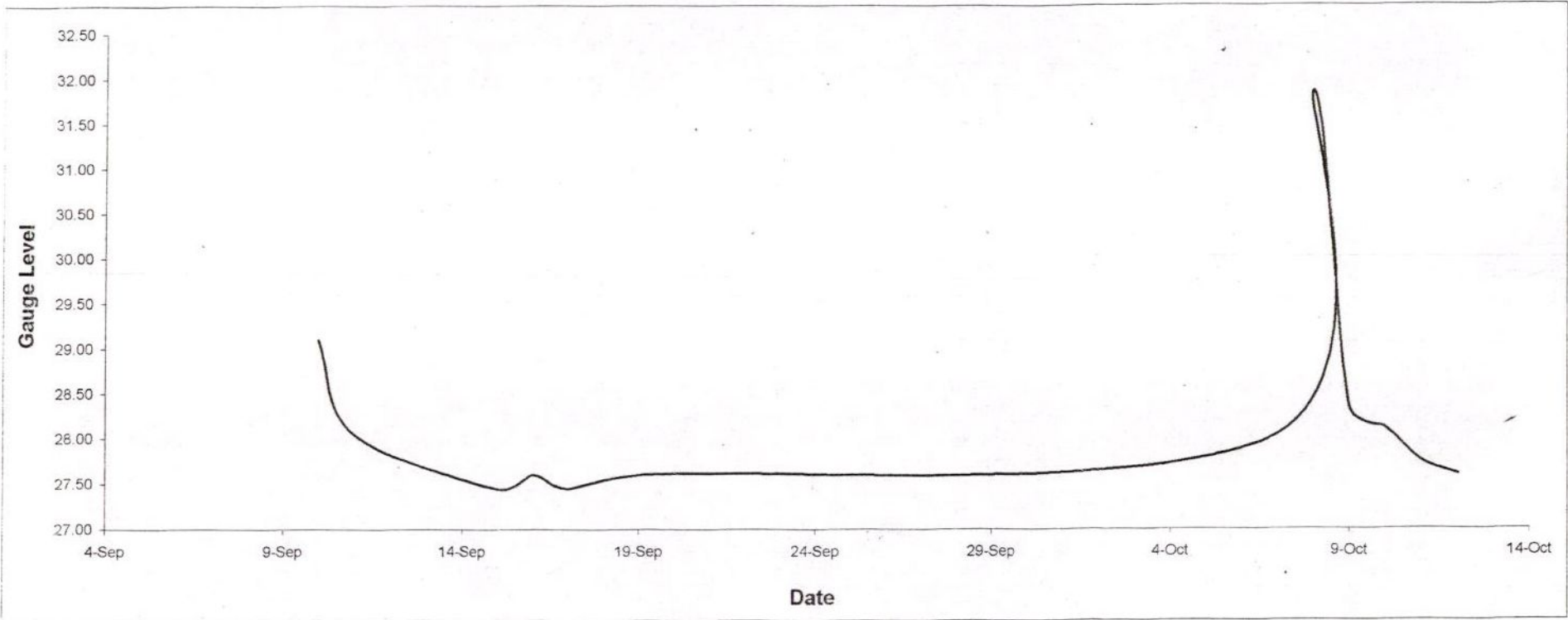
13-Jun	14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	25-Aug	26-Aug	27-Aug
12.85	12.89	12.91	12.91	12.88	12.86	14.84	14.86	14.90	14.95	15.00	15.10	18.80	18.88	19.00
0-Jan	0-Jan	0-Jan	0-Jan	2-Sep	3-Sep	19-Sep	20-Sep	21-Sep	8-Oct	9-Oct	10-Oct	13-Oct	15-Oct	16-Oct
0.00	0.00	0.00	0.00	74.03	74.38	74.48	73.89	74.16	74.88	74.28	73.76	73.56	73.68	73.68

Gauge Levels of important rivers during season of 2009

South Bengal River

River-PAGLA-BANSLOI
Gauge- Bansloi

Extreme Danger Level -32.76 metre
Danger level -31.85 metre
At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0-Jan	0-Jan	0-Jan	10-Sep	11-Sep	15-Sep	16-Sep	17-Sep	19-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
0.00	0.00	0.00	29.10	28.05	27.45	27.60	27.45	27.60	28.05	31.85	28.35	28.12	27.75	27.60

Southh Bengal River

Gauge Levels of important rivers during season of 2009

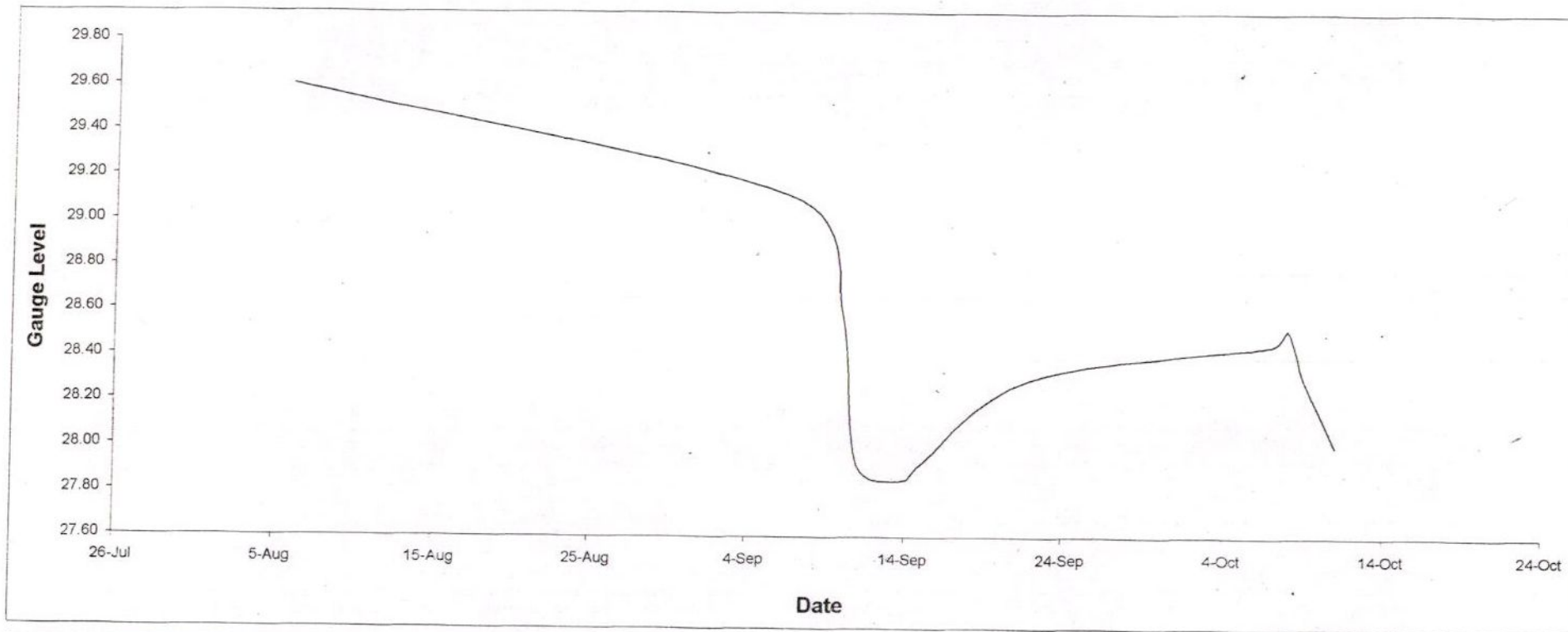
River-BRAHMONI-DWARKA

Gauge- Brahmoni/ADB Road crossing

Extreme Danger Level -33.4 metre

Danger level -33 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0-Jan	0-Jan	6-Aug	7-Sep	10-Sep	11-Sep	14-Sep	15-Sep	22-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
0.00	0.00	0.00	29.60	29.10	28.60	27.92	27.85	27.92	28.30	28.45	28.52	28.30	28.15	28.00

Gauge Levels of important rivers during season of 2009

South Bengal River

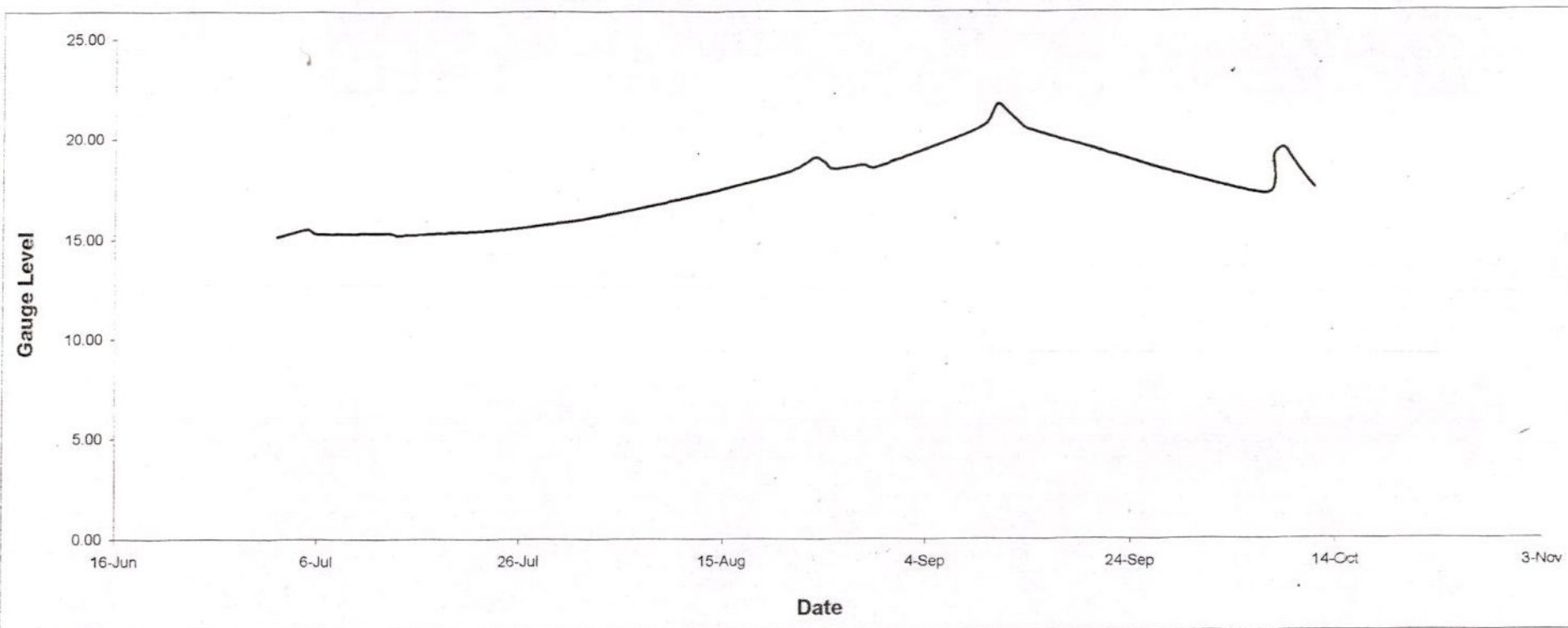
River-BRAHMONI-DWARKA

Gauge- Dwarka/Sankoghat

Extreme Danger Level -21.3 metre

Danger level -20.4 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	2-Jul	5-Jul	6-Jul	13-Jul	14-Jul	31-Jul	21-Aug	24-Aug	25-Aug
						15.13	15.50	15.26	15.28	15.18	15.87	18.25	19.02	18.87
26-Aug	29-Aug	30-Aug	8-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
18.50	18.69	18.55	20.24	20.77	21.70	21.32	20.88	20.48	17.25	19.10	19.52	18.85	18.15	17.52

Gauge Levels of important rivers during season of 2009

Southh Bengal River

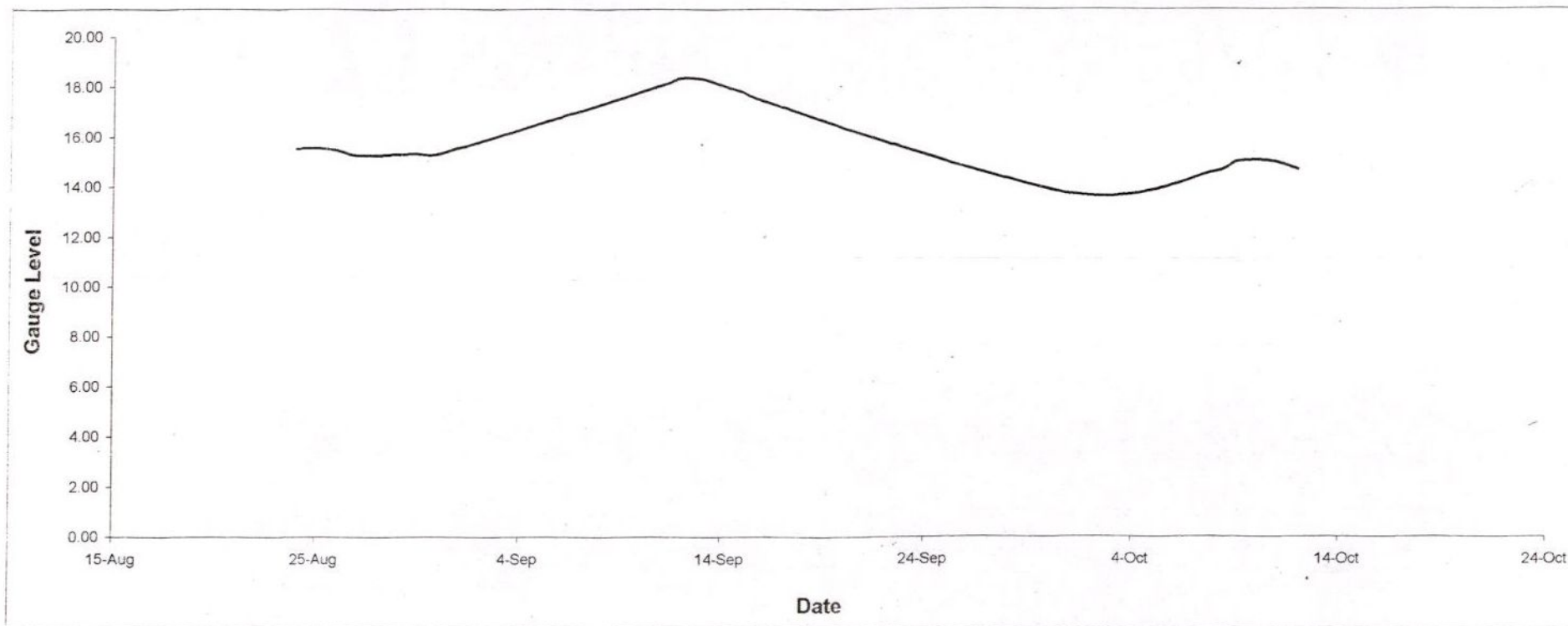
River-BRAHMONI-DWARKA

Gauge- Ranagram

Extreme Danger Level -17.86 metre

Danger level -17.36 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	24-Aug	25-Aug	26-Aug	27-Aug	30-Aug	31-Aug	11-Sep	12-Sep	13-Sep
0.00	0.00	0.00	0.00	0.00	0.00	15.52	15.55	15.45	15.25	15.32	15.28	18.05	18.36	18.33
14-Sep	15-Sep	16-Sep	1-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan
18.06	17.82	17.45	13.73	14.58	14.97	15.05	14.97	14.70	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Levels of important rivers during season of 2009

Southh Bengal River

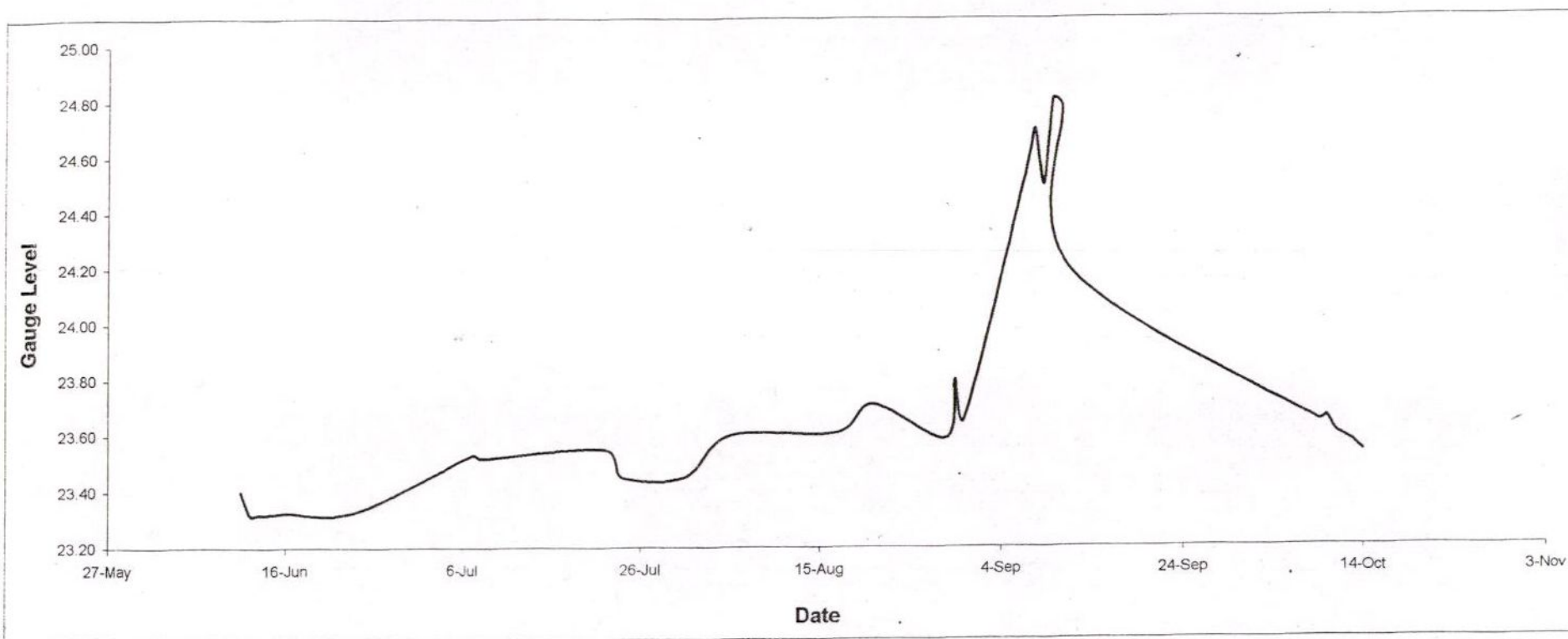
River-MAYURAKSHI

Gauge- Narayanpur

Extreme Danger Level -28.79 metre

Danger level -27.99 metre

At 6.00 AM



11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	24-Jun	7-Jul	8-Jul	9-Jul	22-Jul	24-Jul	31-Jul	5-Aug	17-Aug	21-Aug
23.40	23.32	23.32	23.32	23.33	23.33	23.53	23.52	23.52	23.55	23.45	23.45	23.60	23.61	23.71
29-Aug	30-Aug	31-Aug	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
23.59	23.80	23.66	24.55	24.70	24.50	24.81	24.78	24.19	23.65	23.66	23.61	23.59	23.57	23.54

Gauge Levels of important rivers during season of 2009

Southh Bengal River

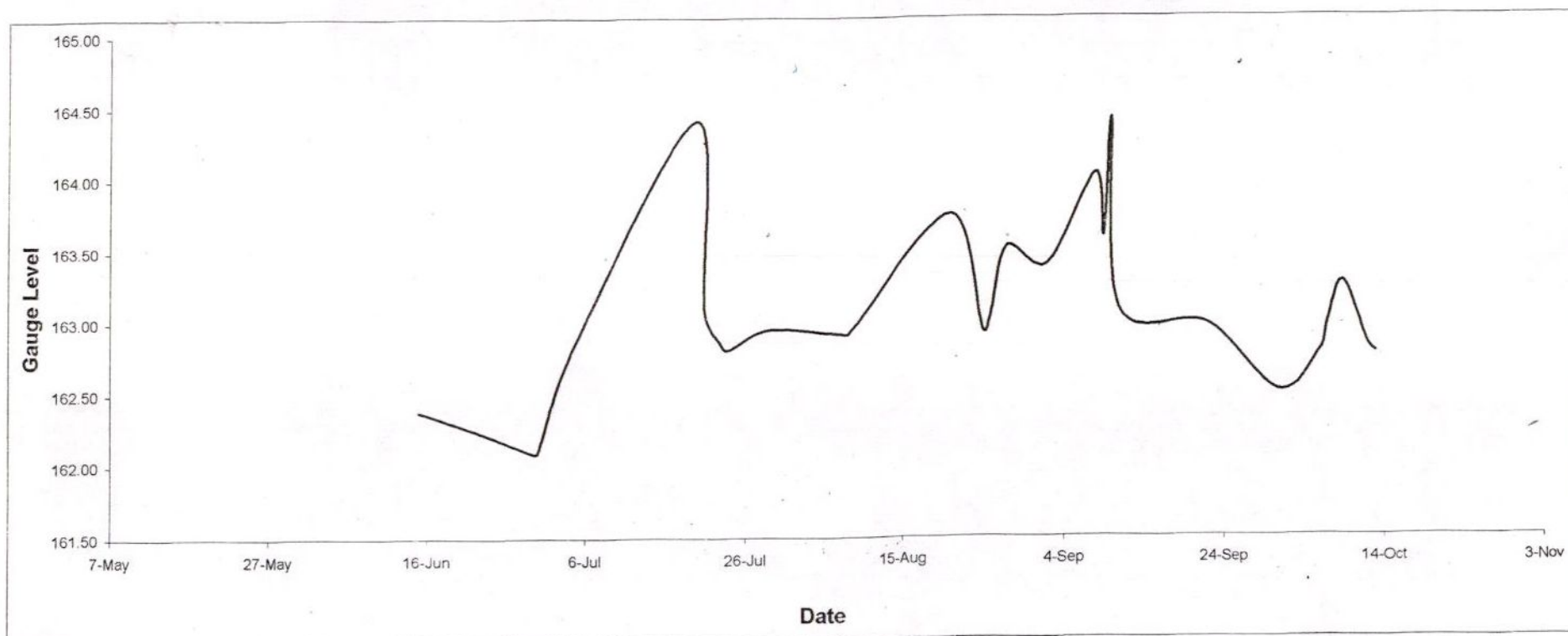
River-AJOY

Gauge- Sikatia

Extreme Danger Level -166.24 metre

Danger level -165.64 metre

At 6.00 AM



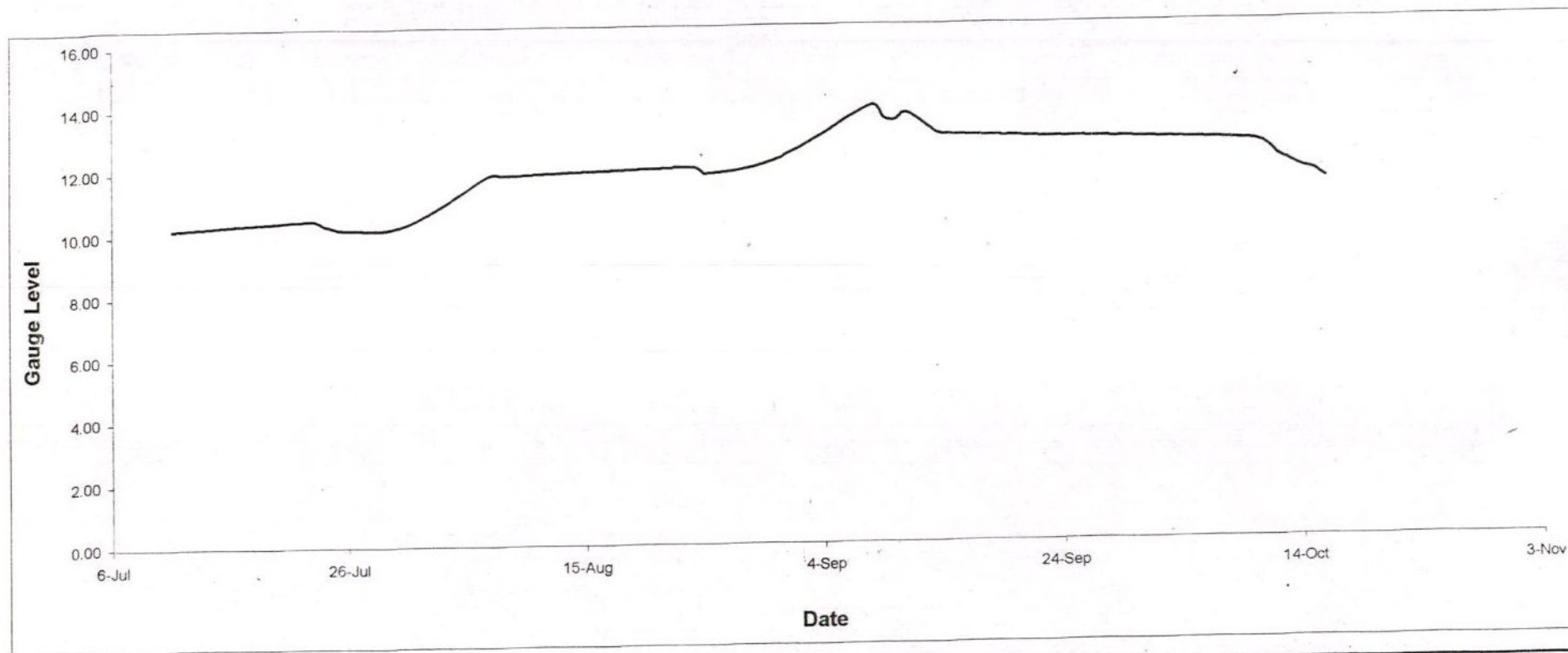
1-Jun	15-Jun	24-Jun	25-Jun	29-Jun	30-Jun	5-Jul	20-Jul	21-Jul	23-Jul	24-Jul	29-Jul	7-Aug	8-Aug	21-Aug
0.00	162.38	162.21	162.19	162.10	162.10	162.88	164.41	163.08	162.86	162.81	162.95	162.92	162.92	163.75
25-Aug	26-Aug	28-Aug	2-Sep	8-Sep	9-Sep	10-Sep	11-Sep	22-Sep	1-Oct	6-Oct	7-Oct	9-Oct	12-Oct	13-Oct
162.94	163.06	163.52	163.40	164.03	163.60	164.41	163.08	162.98	162.51	162.78	162.98	163.27	162.84	162.78

Gauge Levels of important rivers during season of 2009

Southh Bengal River

River-AJOY
Gauge- Katwa

Extreme Danger Level -15.182 metre
Danger level -14.481 metre
At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	11-Jul	23-Jul	24-Jul	25-Jul	26-Jul	31-Jul	7-Aug	8-Aug	9-Aug
						10.20	10.45	10.30	10.20	10.15	10.30	11.85	11.85	11.85
24-Aug	25-Aug	31-Aug	8-Sep	8-Sep	10-Sep	11-Sep	13-Sep	14-Sep	10-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct
12.05	11.85	12.25	13.95	13.55	13.48	13.70	13.20	13.00	12.70	12.20	12.00	11.80	11.70	11.45

Southh Bengal River

River-AJOY

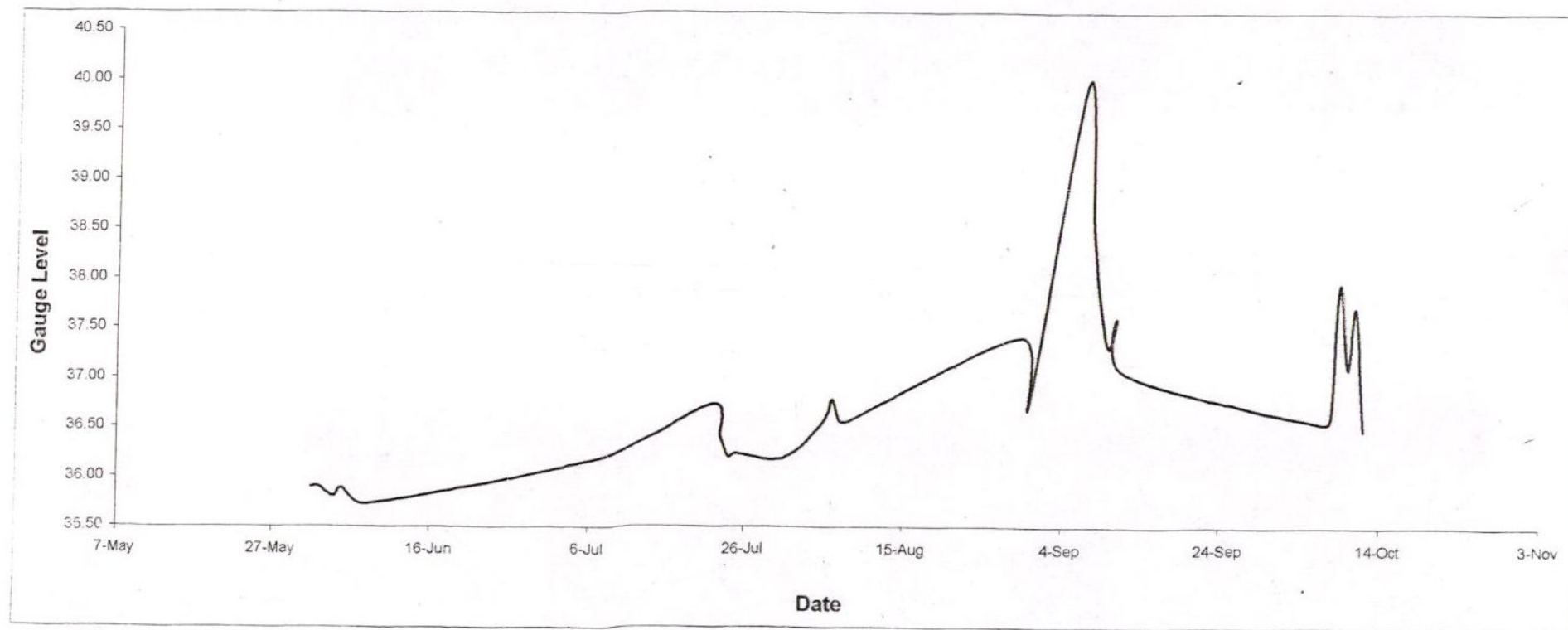
Gauge- Gheropara

Gauge Levels of important rivers during season of 2009

Extreme Danger Level -40.46 metre

Danger level -39.41 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	8-Jun	8-Jul	22-Jul	23-Jul	24-Jul	25-Jul	31-Jul	5-Aug	6-Aug	7-Aug
35.90	35.90	35.84	35.81	35.89	35.73	36.20	36.73	36.40	36.20	36.24	36.19	36.56	36.78	36.56
8-Aug	30-Aug	31-Aug	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
36.56	37.41	36.74	39.96	38.52	37.70	37.31	37.60	37.05	36.54	36.63	37.94	37.10	37.70	36.48

Gauge Levels of important rivers during season of 2009

Southh Bengal River

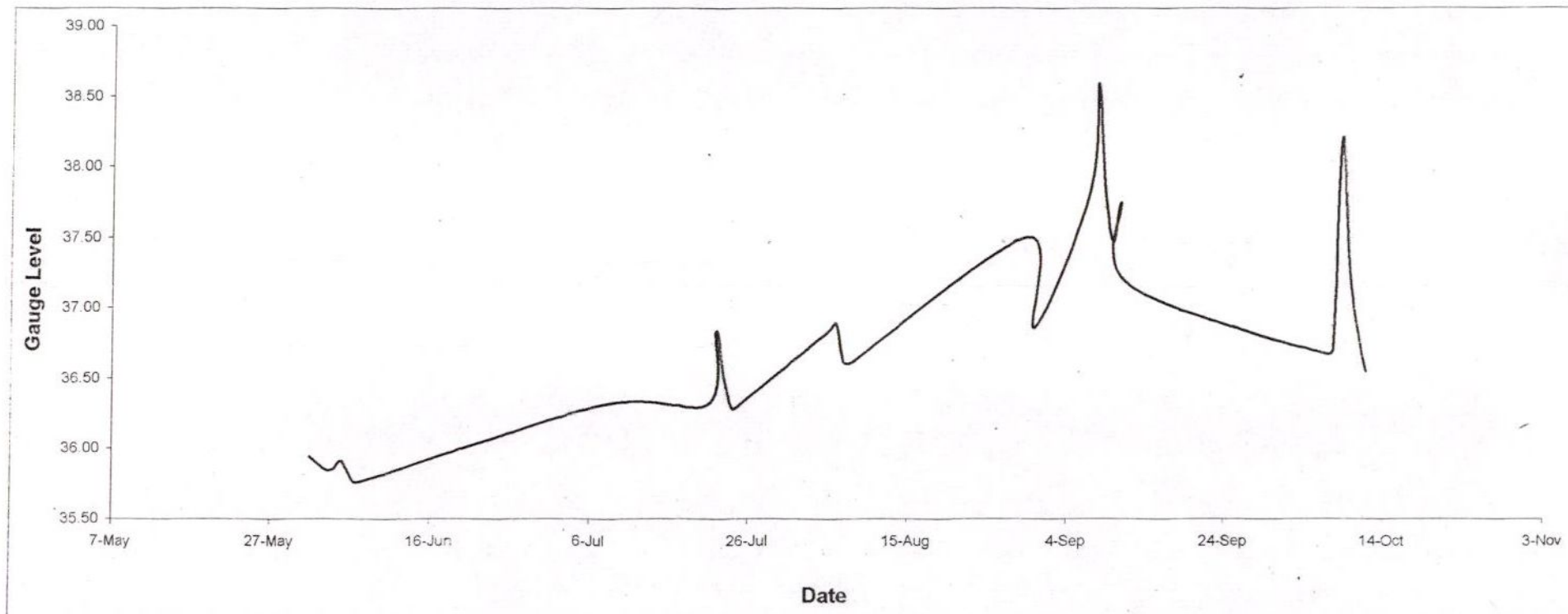
River-AJOY

Gauge- Budra

Extreme Danger Level -40.341 metre

Danger level -39.426 metre

At 6.00 AM



1-Jun	3-Jun	4-Jun	5-Jun	6-Jun	7-Jun	8-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	5-Aug	6-Aug	7-Aug
35.94	35.85	35.85	35.91	35.82	35.76	36.31	36.31	36.83	36.49	36.28	36.31	36.83	36.89	36.61
8-Aug	30-Aug	31-Aug	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct
36.61	37.50	36.86	37.83	36.58	37.80	37.47	37.74	37.16	36.67	36.76	38.20	37.25	36.83	36.55

Gauge Levels of important rivers during season of 2009

Southh Bengal River

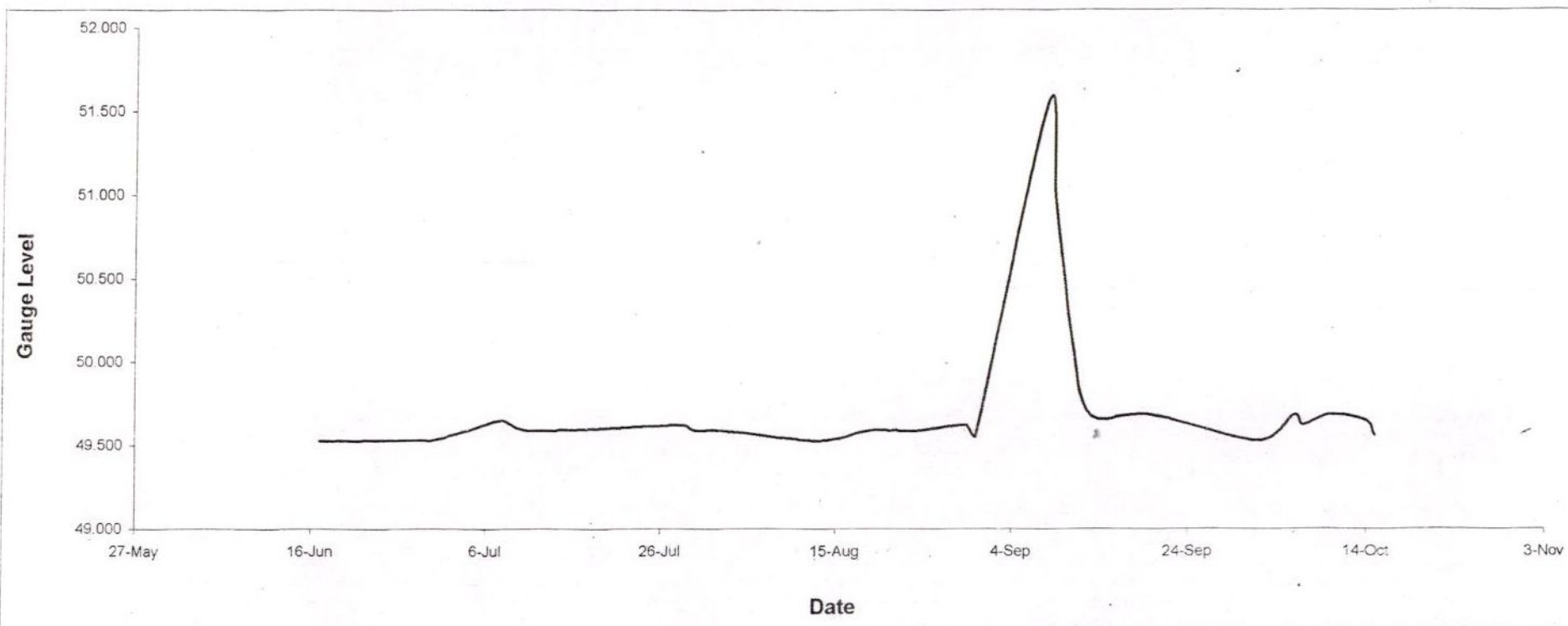
River-DAMODAR

Gauge- Randia

Extreme Danger Level -52.893 metre

Danger level -52.134 metre

At 6.00 AM



17-Jun	18-Jun	27-Jun	28-Jun	29-Jun	30-Jun	4-Jul	8-Jul	11-Jul	28-Jul	29-Jul	30-Jul	2-Aug	13-Aug	19-Aug
49.53	49.53	49.53	49.53	49.53	49.53	49.59	49.65	49.59	49.62	49.62	49.59	49.59	49.53	49.59
24-Aug	30-Aug	31-Aug	8-Sep	9-Sep	10-Sep	11-Sep	13-Sep	20-Sep	2-Oct	6-Oct	7-Oct	10-Oct	14-Oct	15-Oct
49.59	49.62	49.56	51.54	50.99	50.53	50.11	49.68	49.68	49.53	49.68	49.62	49.68	49.65	49.56

Southh Bengal River

River-DAMODAR

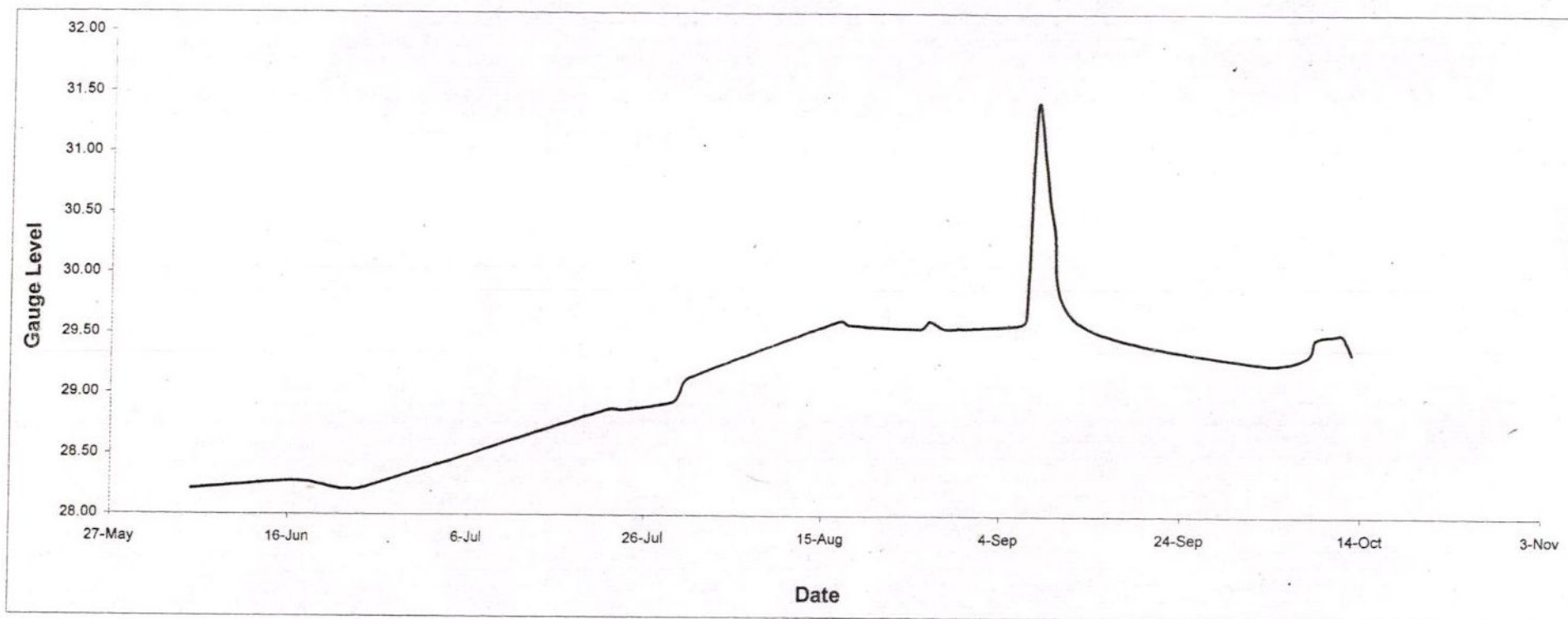
Gauge- Edilpur

Gauge Levels of important rivers during season of 2009

Extreme Danger Level -32.95 metre

Danger level -32.79 metre

At 6.00 AM



5-Jun	15-Jun	18-Jun	22-Jun	23-Jun	24-Jun	22-Jul	23-Jul	24-Jul	29-Jul	30-Jul	31-Jul	17-Aug	18-Aug	26-Aug
28.21	28.27	28.27	28.21	28.21	28.21	28.87	28.87	28.87	28.93	29.02	29.14	29.61	29.58	29.55
27-Aug	28-Aug	29-Aug	6-Sep	7-Sep	8-Sep	9-Sep	10-Sep	13-Sep	3-Oct	8-Oct	9-Oct	11-Oct	12-Oct	13-Oct
29.61	29.58	29.55	29.58	29.54	31.36	30.94	30.40	29.59	29.26	29.32	29.47	29.50	29.50	29.35

Gauge Levels of important rivers during season of 2009

Southh Bengal River

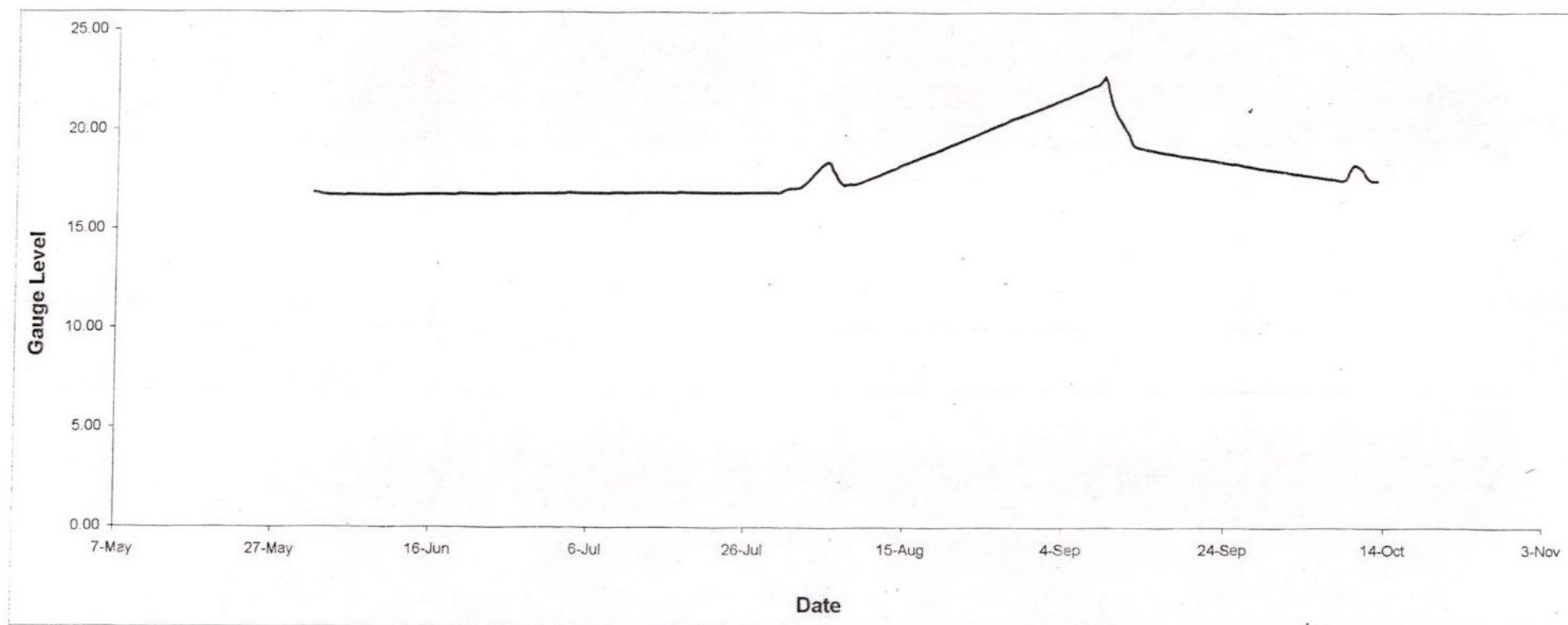
River-DAMODAR

Gauge- Jamalpur

Extreme Danger Level -23.542 metre

Danger level -23.237 metre

At 6.00 AM



1-Jun	3-Jun	4-Jun	5-Jun	6-Jun	9-Jun	12-Jul	13-Jul	26-Jul	27-Jul	30-Jul	31-Jul	2-Aug	5-Aug	6-Aug
16.83	16.68	16.68	16.68	16.68	16.68	16.83	16.83	16.83	16.83	16.83	16.98	17.13	18.33	17.88
7-Aug	8-Aug	9-Aug	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
17.28	17.28	17.28	22.23	22.63	21.21	20.40	19.68	19.08	17.49	17.49	18.18	18.03	17.49	17.43

Gauge Levels of important rivers during season of 2009

Southh Bengal River

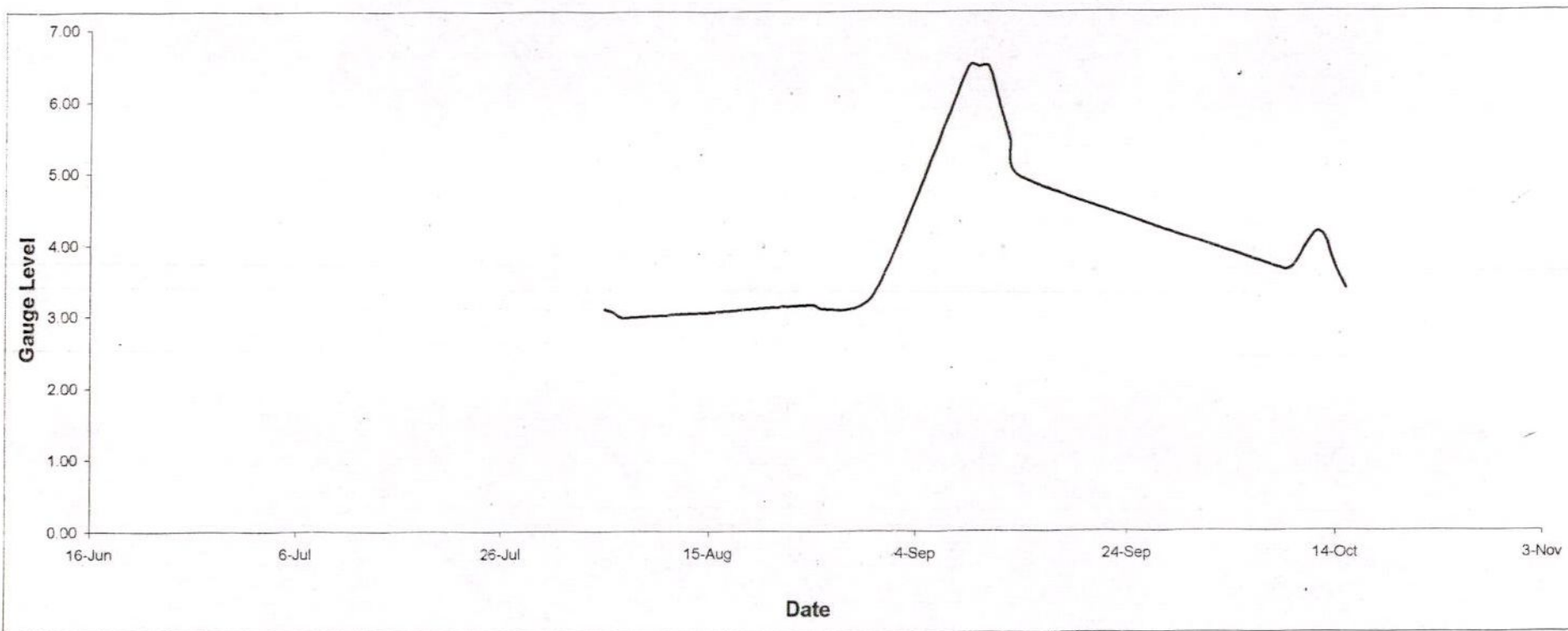
River-DAMODAR

Gauge- Amta

Extreme Danger Level -6.24 metre

Danger level -5.64 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	4-Jul	5-Jul	6-Jul	5-Aug	6-Aug	7-Aug
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	0.00	0.00	3.10	3.05	2.98
25-Aug	26-Aug	31-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	9-Oct	10-Oct	12-Oct	13-Oct	14-Oct	15-Oct
3.15	3.10	3.30	6.48	6.43	6.47	5.93	5.43	4.93	3.65	3.70	4.15	4.10	3.70	3.38

Gauge Levels of important rivers during season of 2009

Southh Bengal River

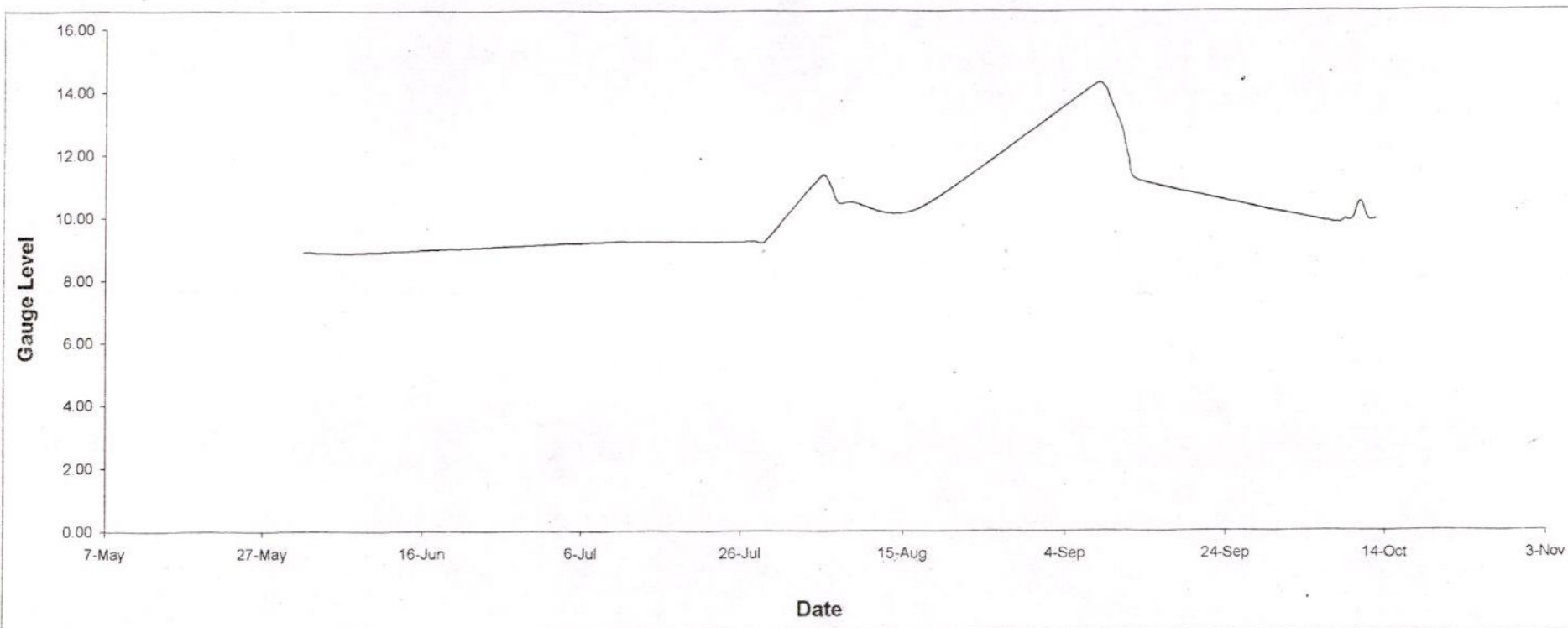
River-DAMODAR

Gauge- Champadanga

Extreme Danger Level -13.5 metre

Danger level -12.89 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	11-Jul	12-Jul	26-Jul	27-Jul	28-Jul	29-Jul	5-Aug	6-Aug	7-Aug
8.90	8.90	8.87	8.87	8.87	8.84	9.23	9.20	9.20	9.23	9.23	9.20	11.31	11.06	10.45
8-Aug	9-Aug	17-Aug	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
10.45	10.45	10.27	14.26	14.14	13.50	12.86	11.76	11.15	9.81	9.90	9.90	10.48	9.93	9.90

Gauge Levels of important rivers during season of 2009

Southh Bengal River

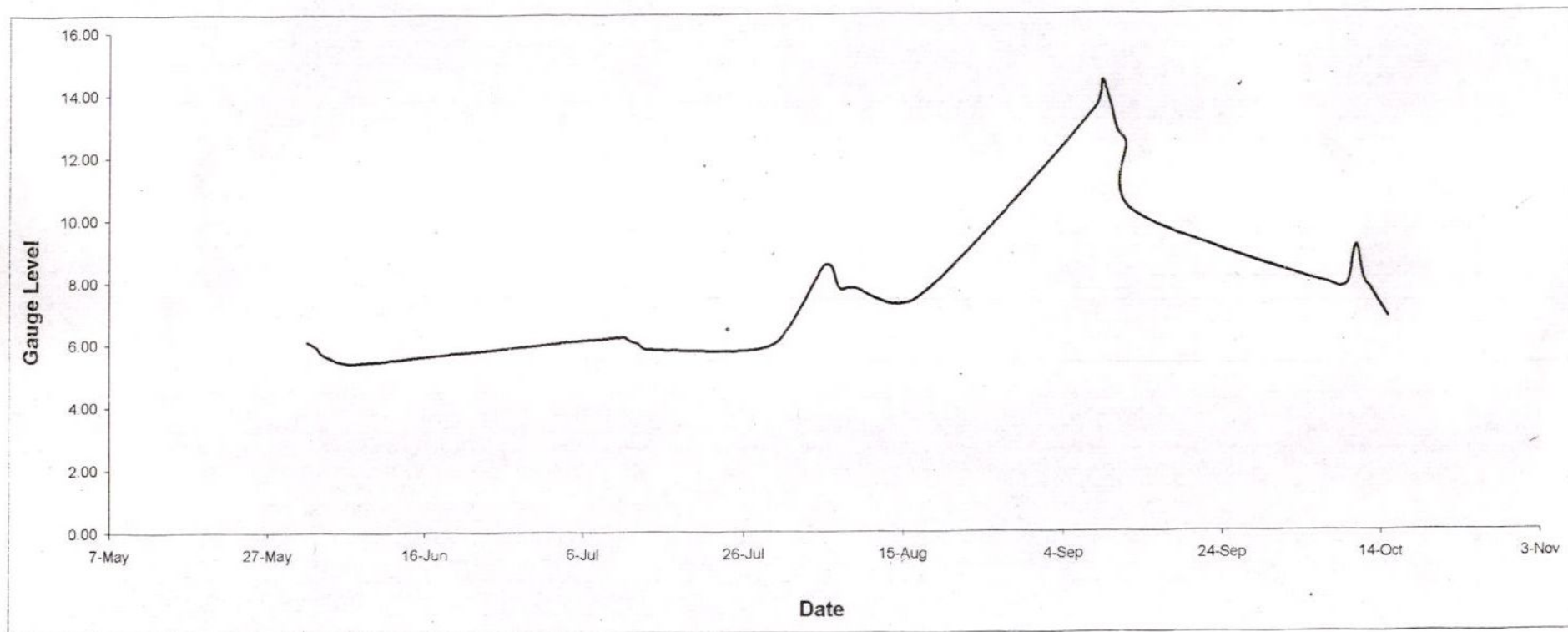
River-DAMODAR

Gauge- Mundeswari/Harinkhola

Extreme Danger Level -13.41 metre

Danger level -12.6 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	7-Jun	11-Jul	12-Jul	13-Jul	14-Jul	27-Jul	31-Jul	5-Aug	6-Aug	7-Aug
6.10	5.95	5.70	5.60	5.45	5.40	6.24	6.11	6.02	5.86	5.81	6.30	8.50	8.50	7.80
8-Aug	9-Aug	17-Aug	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	15-Oct
7.80	7.80	7.49	13.50	14.43	13.76	12.79	12.38	10.20	7.79	7.93	9.10	8.02	7.67	6.82

Gauge Levels of important rivers during season of 2009

Southh Bengal River

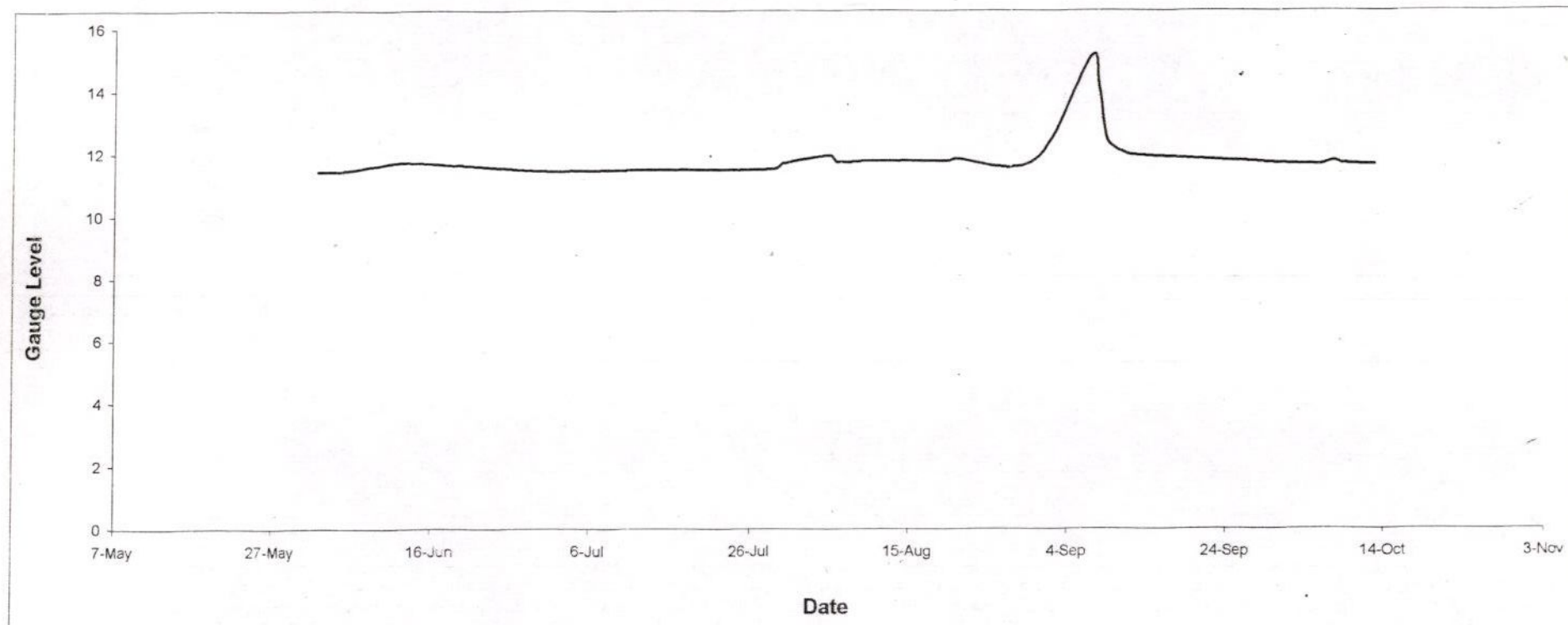
River-DWARAKESWAR

Gauge- Arambag

Extreme Danger Level -17.83 metre

Danger level -17.22 metre

At 6.00 AM



2-Jun	3-Jun	4-Jun	5-Jun	12-Jun	13-Jun	1-Jul	2-Jul	13-Jul	29-Jul	30-Jul	31-Jul	5-Aug	6-Aug	10-Aug
11.43	11.43	11.43	11.43	11.73	11.73	11.43	11.43	11.49	11.50	11.67	11.73	11.92	11.73	11.76
20-Aug	21-Aug	31-Aug	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	6-Oct	7-Oct	8-Oct	9-Oct	12-Oct	13-Oct
11.76	11.82	11.79	15.09	14.19	12.49	12.19	12.04	11.95	11.64	11.70	11.76	11.67	11.64	11.64

Gauge Levels of important rivers during season of 2009

Southh Bengal River

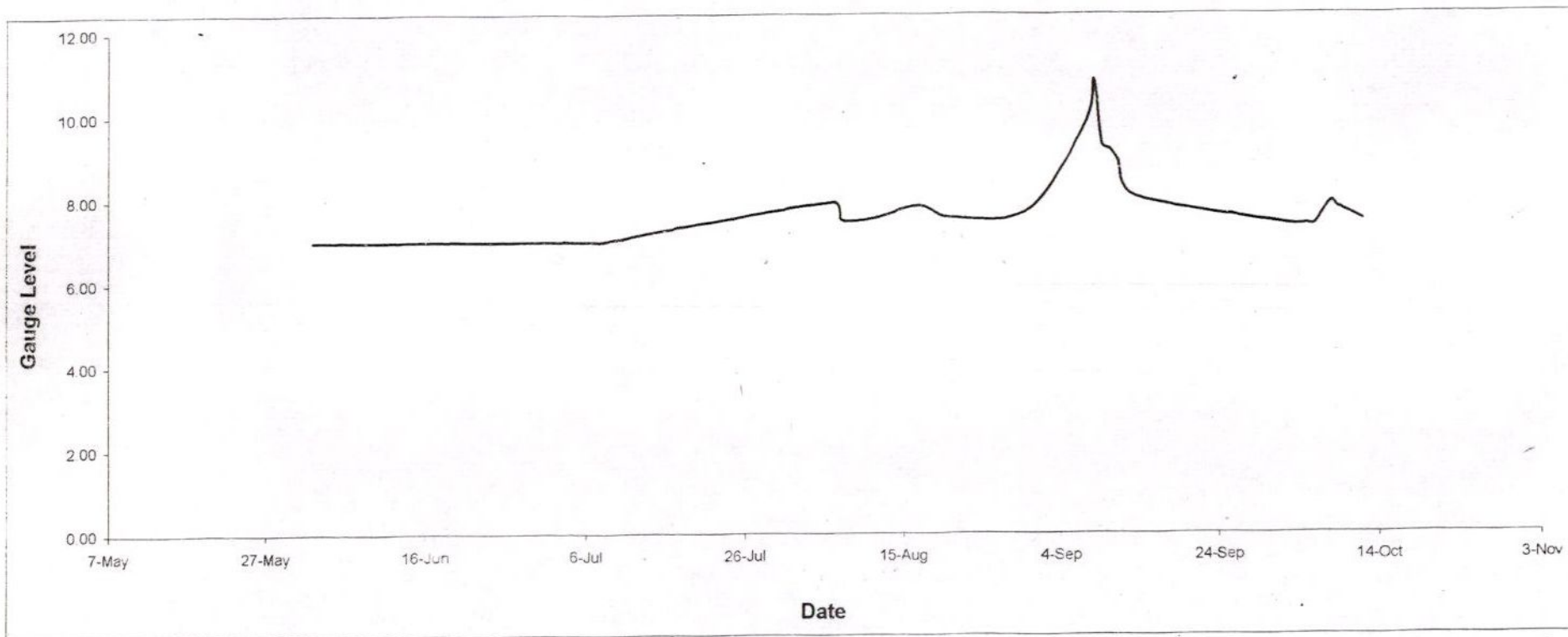
River-DWARAKESWAR

Gauge- Shakepur

Extreme Danger Level -12.74 metre

Danger level -11.74 metre

At 6.00 AM



2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	9-Jun	1-Jul	2-Jul	3-Jul	6-Jul	7-Jul	8-Jul	6-Aug	7-Aug	11-Aug
7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.93	7.52	7.54
17-Aug	21-Aug	31-Aug	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	13-Sep	3-Oct	5-Oct	6-Oct	8-Oct	9-Oct	12-Oct
7.64	7.56	7.74	9.84	10.83	9.31	9.18	8.88	8.06	7.38	7.38	7.38	7.91	7.76	7.48

Gauge Levels of important rivers during season of 2009

Southh Bengal River

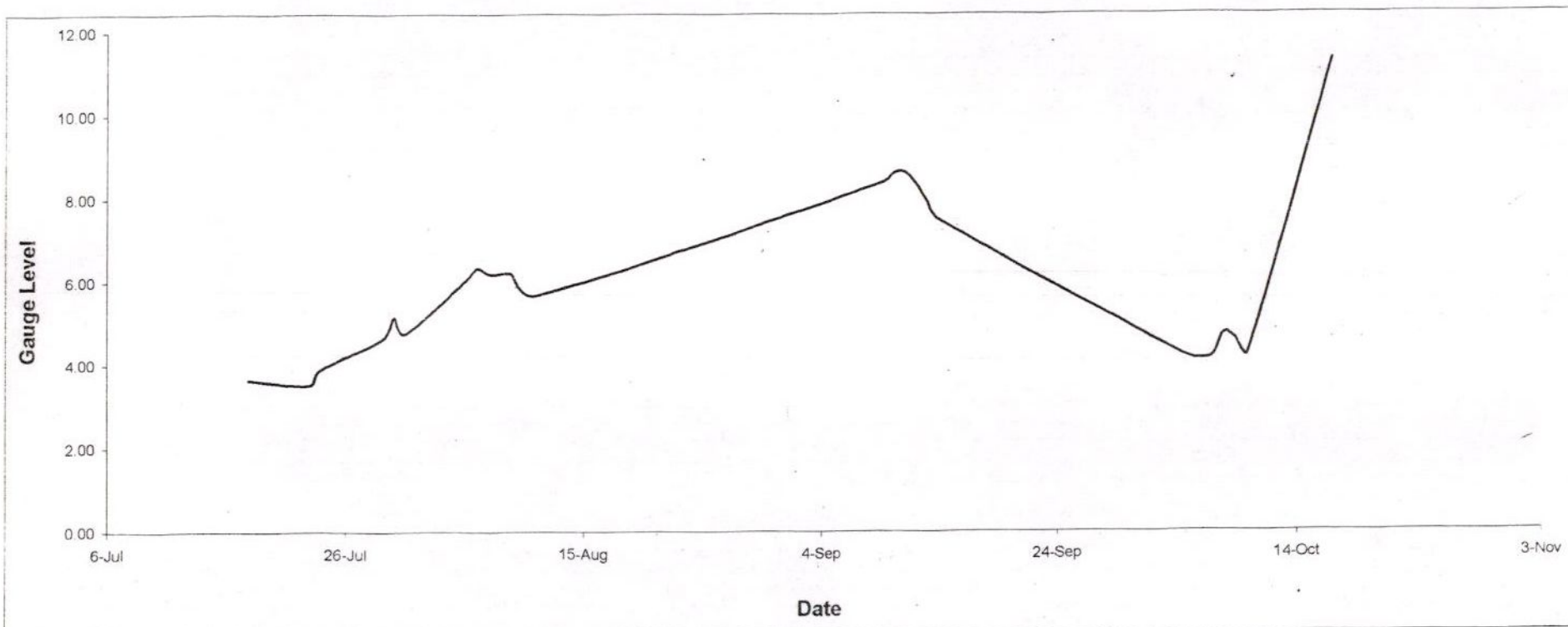
River-SILABATI

Gauge- Gadghat

Extreme Danger Level -9.6 metre

Danger level -8.99 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	18-Jul	23-Jul	24-Jul	29-Jul	30-Jul	31-Jul	5-Aug	6-Aug	7-Aug
0.00	0.00	0.00	0.00	0.00	0.00	3.65	3.53	3.90	4.63	5.15	4.78	6.03	6.34	6.20
8-Aug	9-Aug	11-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	5-Oct	7-Oct	8-Oct	9-Oct	10-Oct	17-Oct
6.20	6.20	5.67	8.35	8.56	8.62	8.35	7.90	7.48	4.20	4.17	4.72	4.60	4.26	11.32

Gauge Levels of important rivers during season of 2009

Southh Bengal River

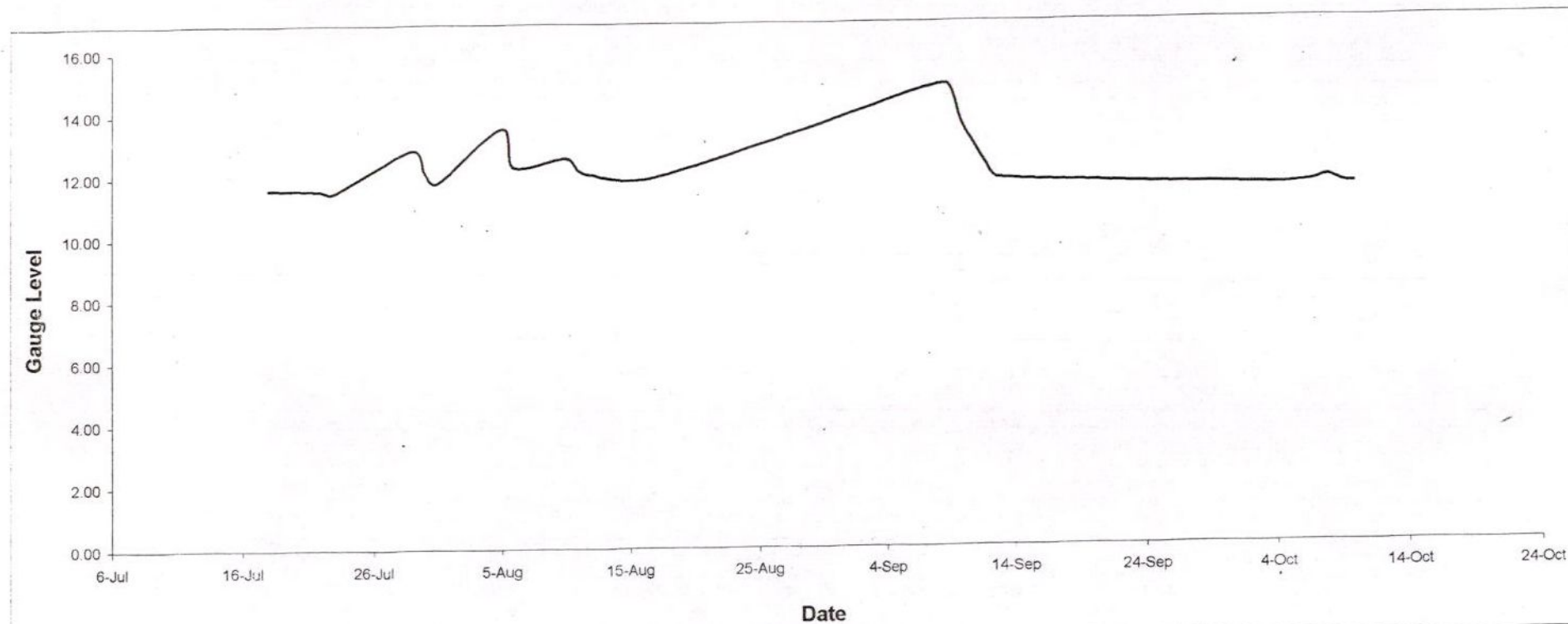
River-KANGSABATI

Gauge- Banka

Extreme Danger Level -15.68 metre

Danger level -15.08 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	18-Jul	22-Jul	23-Jul	29-Jul	30-Jul	31-Jul	5-Aug	6-Aug	10-Aug
0.00	0.00	0.00	0.00	0.00	0.00	11.62	11.56	11.50	12.84	12.17	11.80	13.54	12.29	12.56
11-Aug	12-Aug	17-Aug	7-Sep	8-Sep	10-Sep	11-Sep	12-Sep	13-Sep	4-Oct	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct
12.17	12.02	11.92	14.73	14.85	13.63	12.90	12.23	11.80	11.53	11.56	11.62	11.75	11.56	11.53

Gauge Levels of important rivers during season of 2009

Southh Bengal River

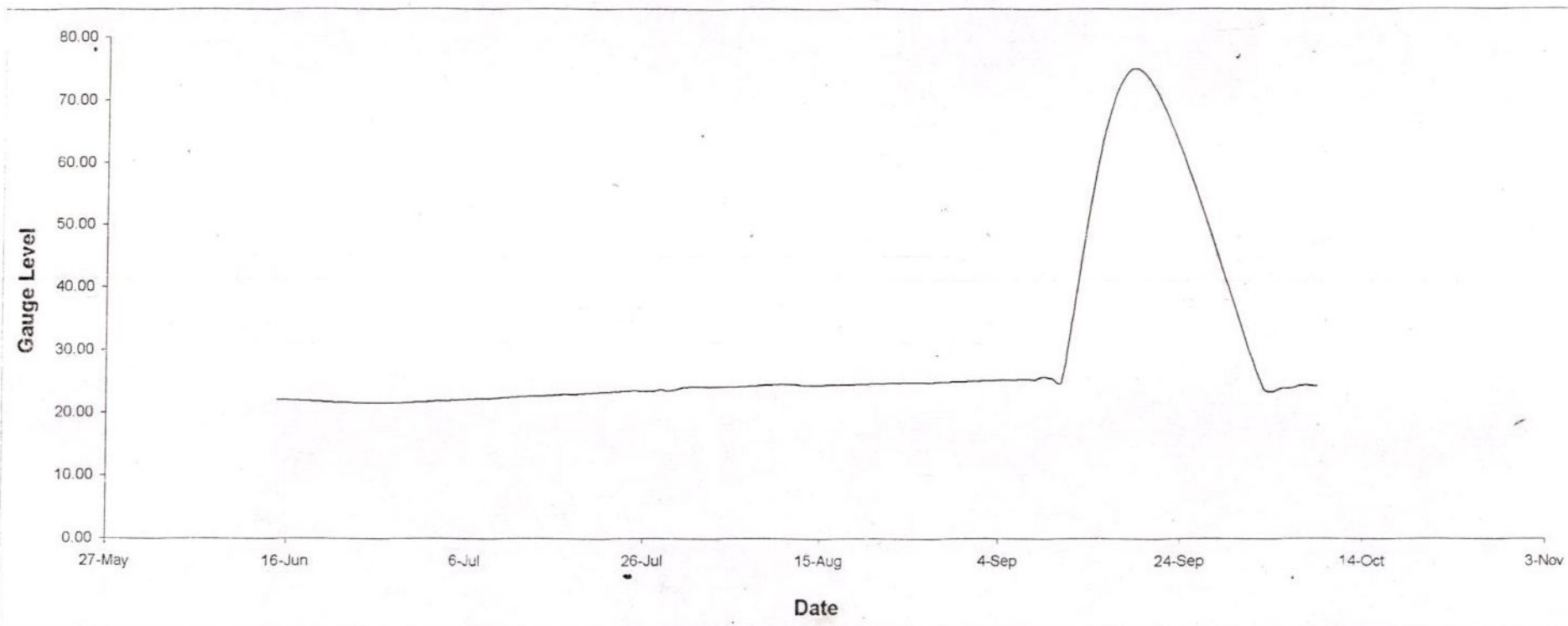
River-KANGSABATI

Gauge- Mohanpur(Cossye)

Extreme Danger Level -26.36 metre

Danger level -25.75 metre

At 6.00 AM



0-Jan	15-Jun	24-Jun	25-Jun	27-Jun	28-Jun	24-Jul	25-Jul	27-Jul	28-Jul	29-Jul	31-Jul	5-Aug	6-Aug	10-Aug
0.00	22.06	21.54	21.50	21.48	21.47	23.42	23.44	23.40	23.64	23.46	24.08	24.10	24.16	24.48
11-Aug	12-Aug	14-Aug	7-Sep	8-Sep	9-Sep	10-Sep	11-Sep	19-Sep	3-Oct	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct
24.52	24.52	24.30	25.24	25.14	25.68	25.40	24.86	74.92	23.90	23.94	23.94	24.34	24.38	24.28

Gauge Levels of important rivers during season of 2009

Southh Bengal River

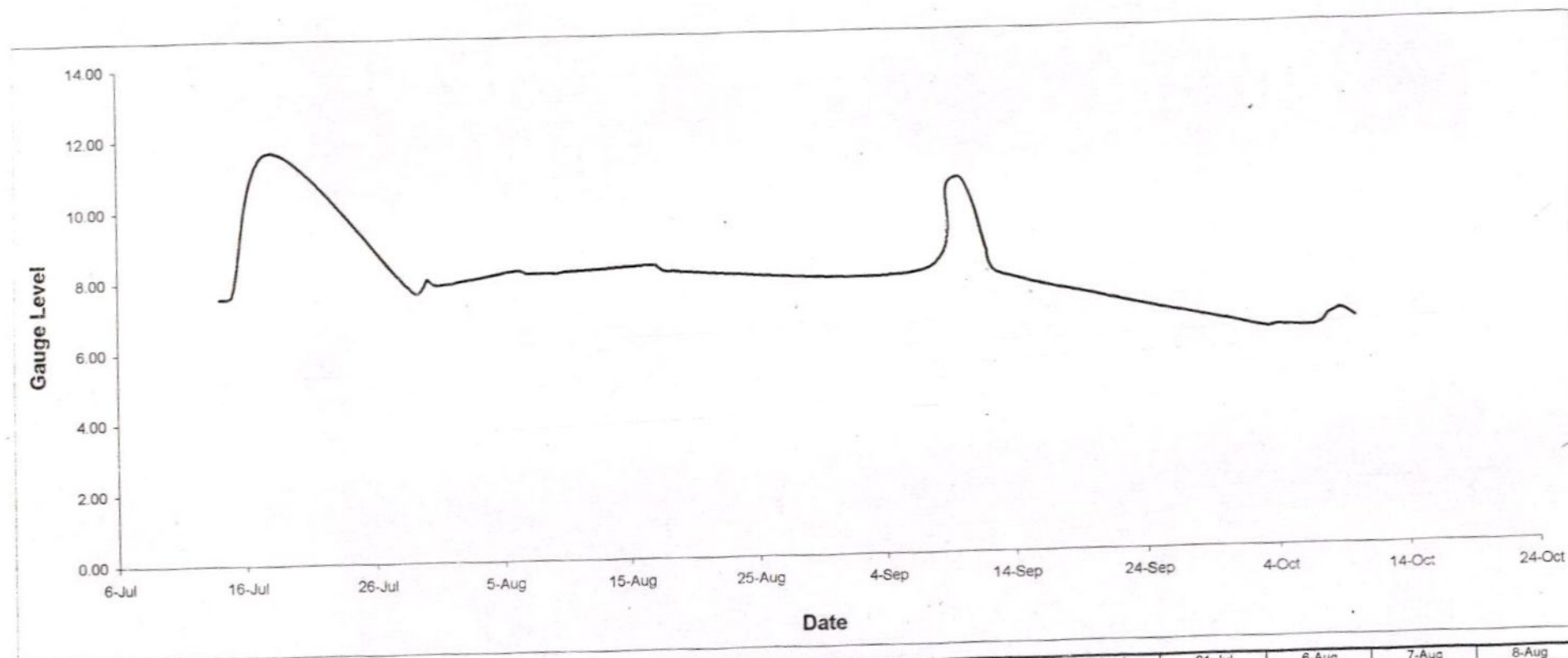
River-KANGSABATI

Gauge- Kalmijole(Old Cossye)

Extreme Danger Level -9.9 metre

Danger level -9.29 metre

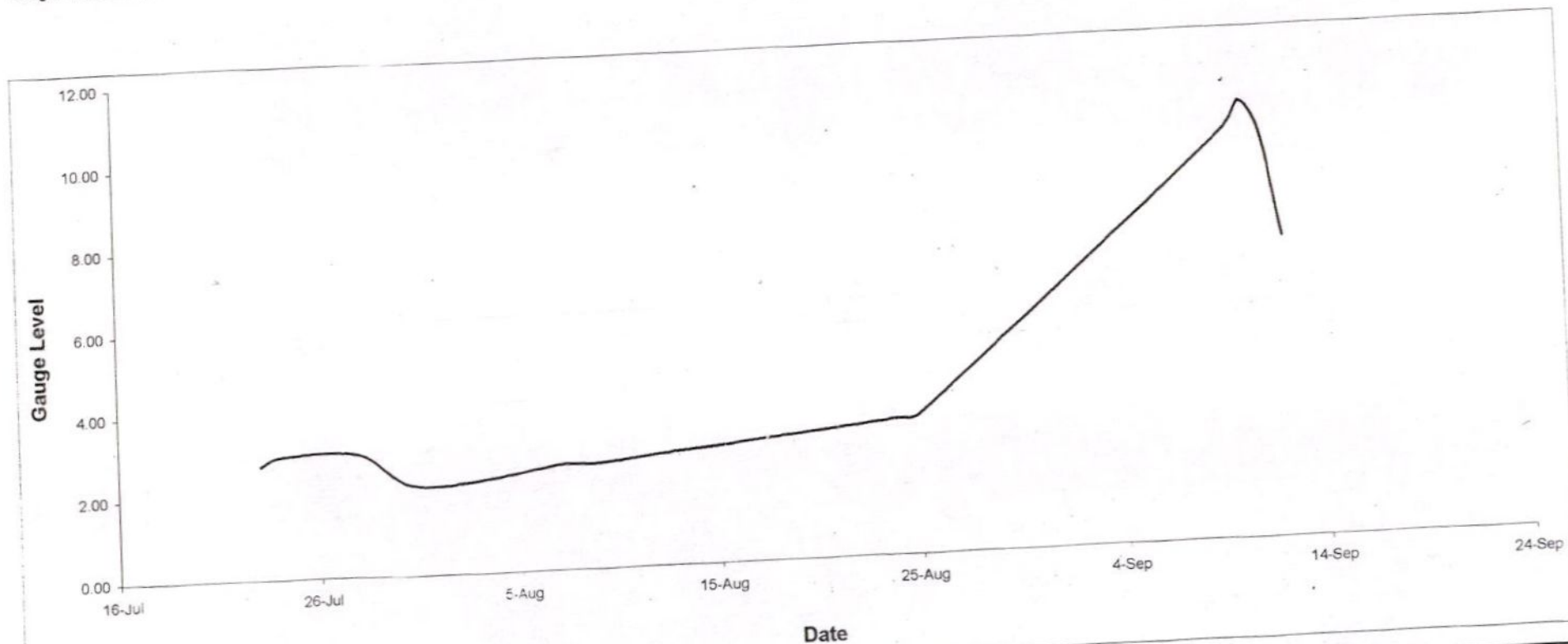
At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	14-Jul	15-Jul	18-Jul	29-Jul	30-Jul	31-Jul	6-Aug	7-Aug	8-Aug
0.00	0.00	0.00	0.00	0.00	0.00	7.53	7.65	11.65	7.62	7.96	7.82	8.20	8.11	8.11
9-Aug	17-Aug	18-Aug	7-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	3-Oct	4-Oct	7-Oct	8-Oct	9-Oct	10-Oct
8.11	8.29	8.11	7.95	10.39	10.57	9.81	8.53	7.83	6.18	6.21	6.18	6.49	6.61	6.40

Gauge Levels of important rivers during season of 2009

Extreme Danger Level -9.9 metre
Danger level -9.29 metre
At 6.00 AM

[illegible]

South Bengal River

River-KALIAGHAI

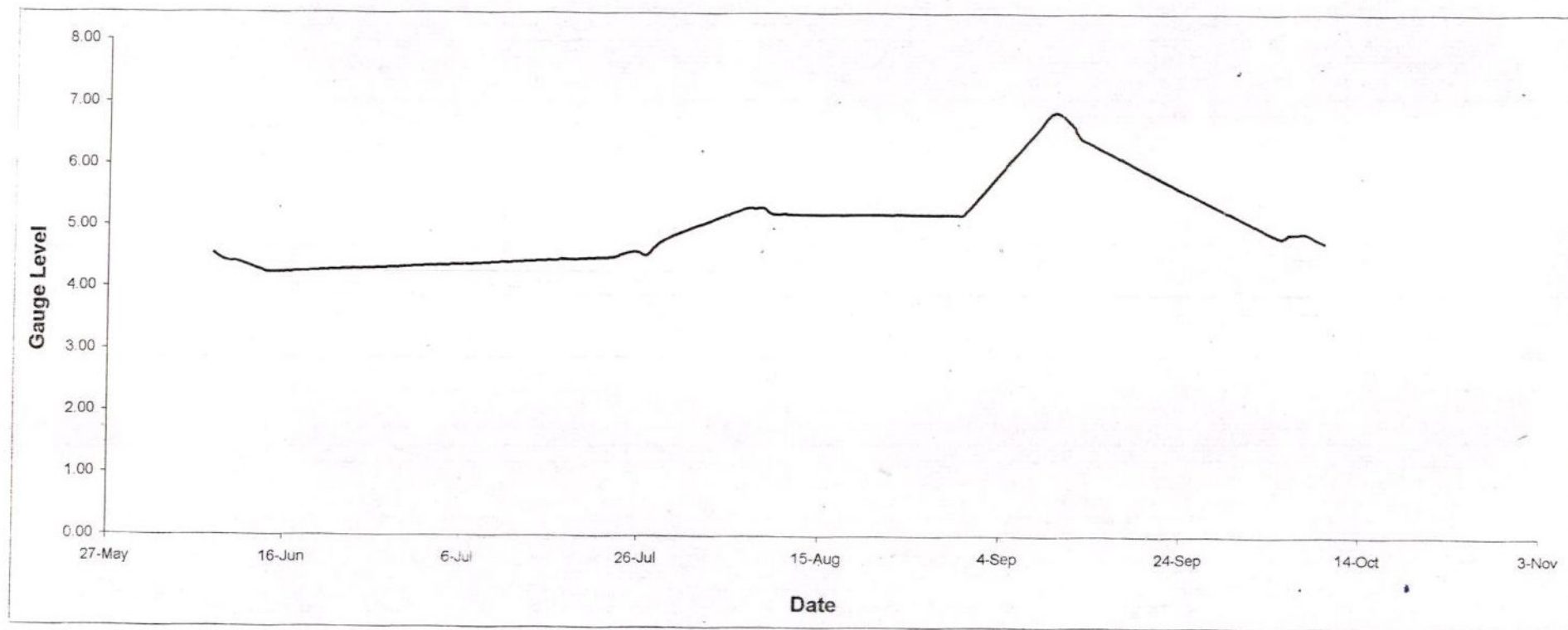
Gauge- Amgachia

Gauge Levels of important rivers during season of 2009

Extreme Danger Level -6.4 metre

Danger level -5.8 metre

At 6.00 AM



8-Jun	9-Jun	10-Jun	11-Jun	14-Jun	15-Jun	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	29-Jul	7-Aug	8-Aug	9-Aug
4.55	4.45	4.42	4.40	4.25	4.25	4.50	4.55	4.58	4.58	4.54	4.79	5.29	5.29	5.29
10-Aug	30-Aug	31-Aug	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct
5.20	5.19	5.20	6.55	6.78	6.85	6.77	6.61	6.40	4.84	4.90	4.90	4.90	4.82	4.75

Gauge Levels of important rivers during season of 2009

Southh Bengal River

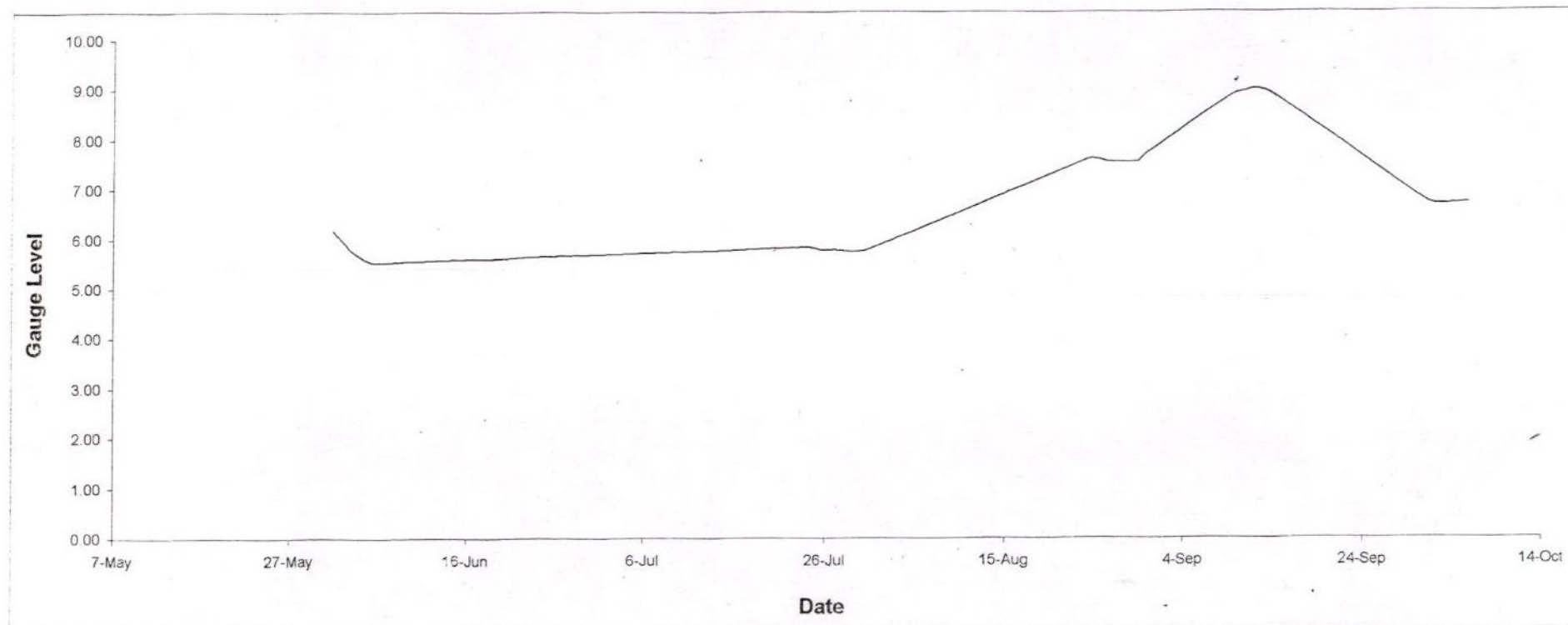
River-JALANGI

Gauge- Swarupganj

Extreme Danger Level -9.05 metre

Danger level -8.44 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	31-Jul	24-Aug	25-Aug	26-Aug
6.18	5.97	5.78	5.66	5.57	5.53	5.84	5.81	5.78	5.79	5.77	5.80	7.56	7.59	7.56
27-Aug	30-Aug	31-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct
7.53	7.54	7.71	8.81	8.91	8.95	9.00	8.97	8.90	6.79	6.70	6.68	6.69	6.70	6.72

Gauge Levels of Important rivers during season of 2009

Southh Bengal River

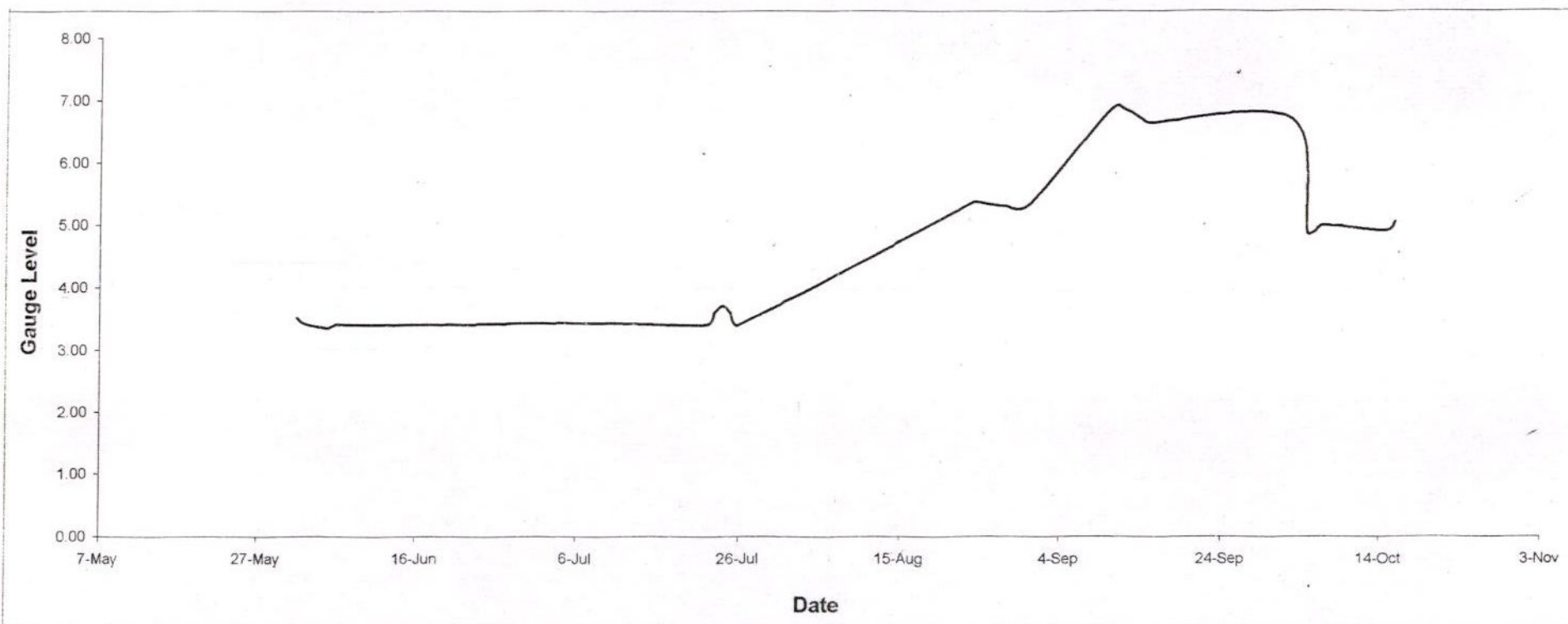
River-CHURNI

Gauge- Hanskhali

Extreme Danger Level -8.14 metre

Danger level -7.53 metre

At 6.00 AM



1-Jun	2-Jun	5-Jun	6-Jun	23-Jun	24-Jun	9-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	24-Aug	25-Aug	26-Aug
3.51	3.42	3.35	3.40	3.40	3.42	3.43	3.40	3.60	3.70	3.60	3.40	5.35	5.36	5.34
27-Aug	28-Aug	31-Aug	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	3-Oct	5-Oct	6-Oct	7-Oct	15-Oct	16-Oct
5.32	5.31	5.30	6.80	6.91	6.85	6.79	6.71	6.64	6.71	4.88	4.90	4.99	4.92	5.05

Gauge Levels of important rivers during season of 2009

Southh Bengal River

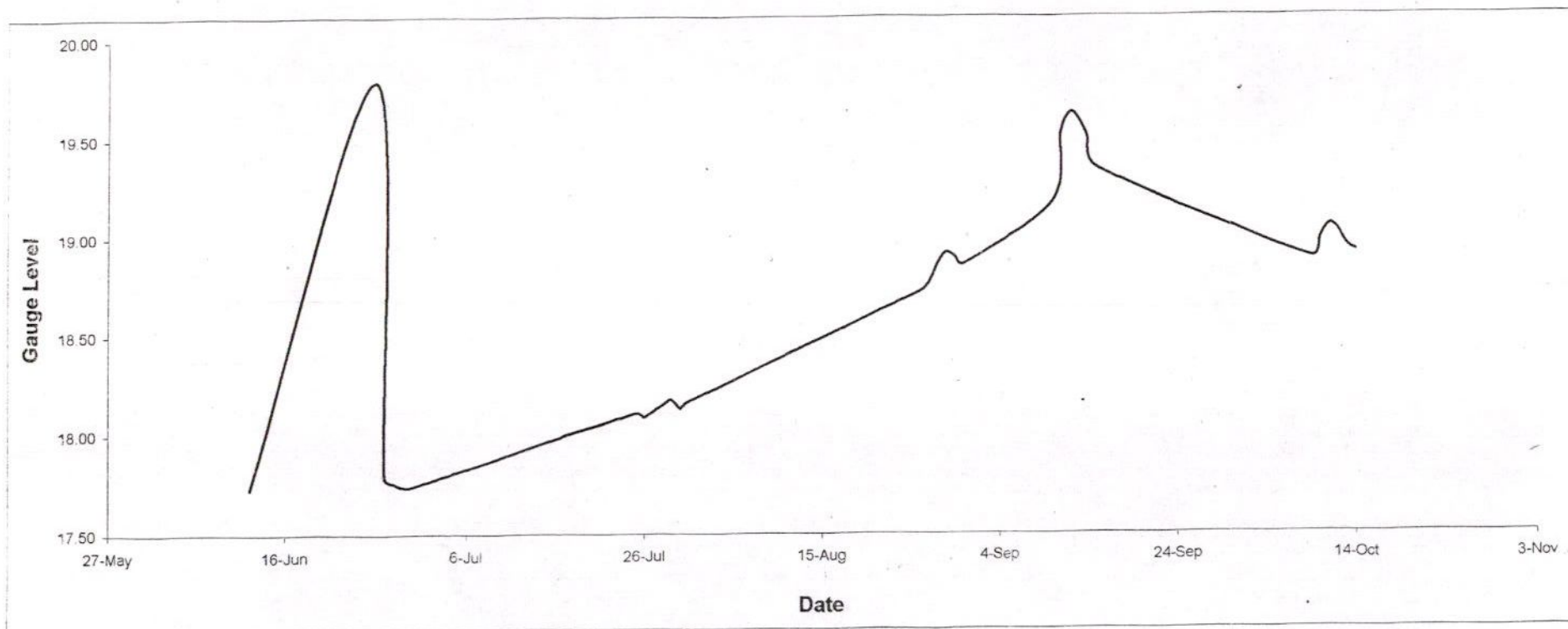
River-BHAGIRAYHI-HOOGHLY

Gauge- Jangipur

Extreme Danger Level -20.88 metre

Danger level -20.27 metre

At 6.00 AM



12-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	25-Jul	26-Jul	28-Jul	29-Jul	30-Jul	31-Jul	26-Aug	27-Aug	28-Aug
17.73	19.79	17.79	17.76	17.74	17.74	18.11	18.09	18.15	18.18	18.13	18.17	18.72	18.76	18.86
29-Aug	30-Aug	31-Aug	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
18.92	18.90	18.86	18.17	18.52	18.62	18.59	18.49	18.34	18.69	18.98	19.05	19.03	18.95	18.92

Gauge Levels of important rivers during season of 2009

Southh Bengal River

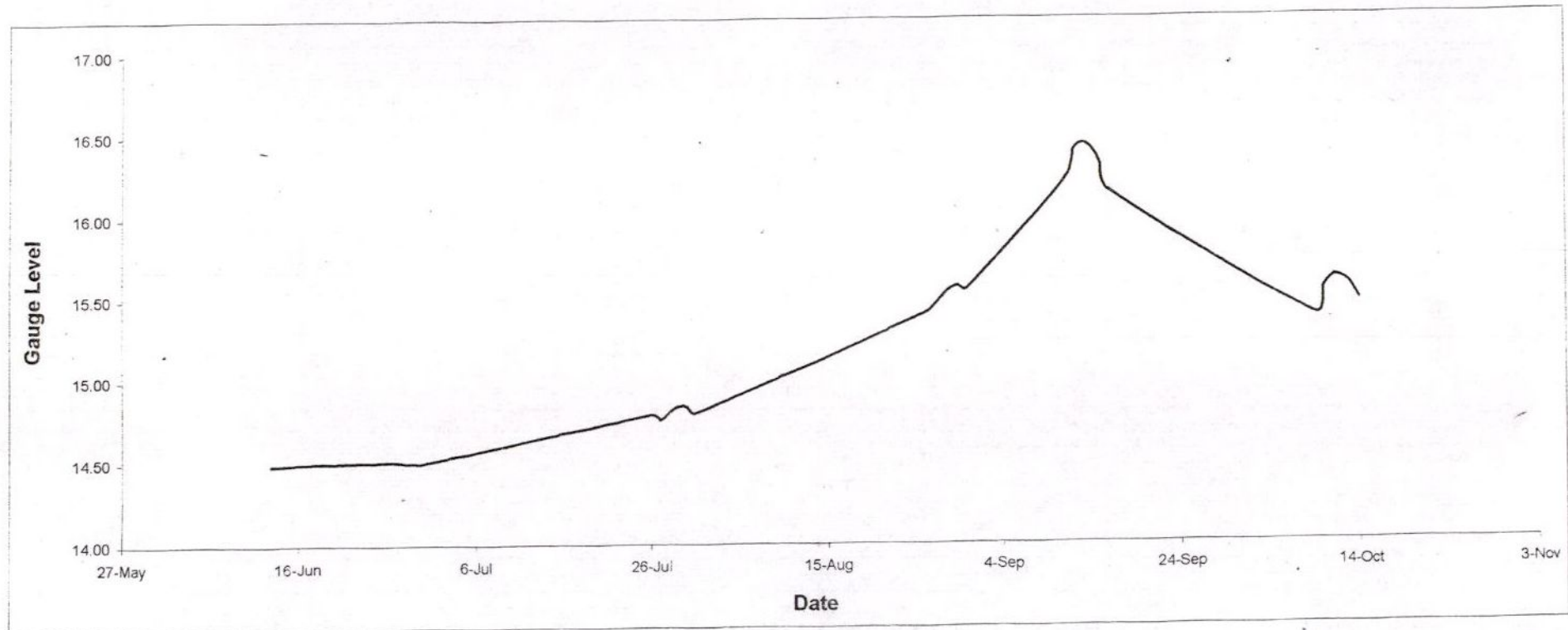
River-BHAGIRAYHI-HOOGHLY

Gauge- Berhampur

Extreme Danger Level -17.83 metre

Danger level -17.22 metre

At 6.00 AM



13-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	26-Aug	27-Aug	28-Aug
14.49	14.51	14.51	14.50	14.50	14.50	14.79	14.76	14.80	14.84	14.84	14.80	15.40	15.44	15.50
29-Aug	30-Aug	31-Aug	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct
15.55	15.57	15.55	16.21	16.39	16.43	16.40	16.30	16.14	15.38	15.53	15.60	15.60	15.56	15.47

Gauge Levels of important rivers during season of 2009

Southh Bengal River

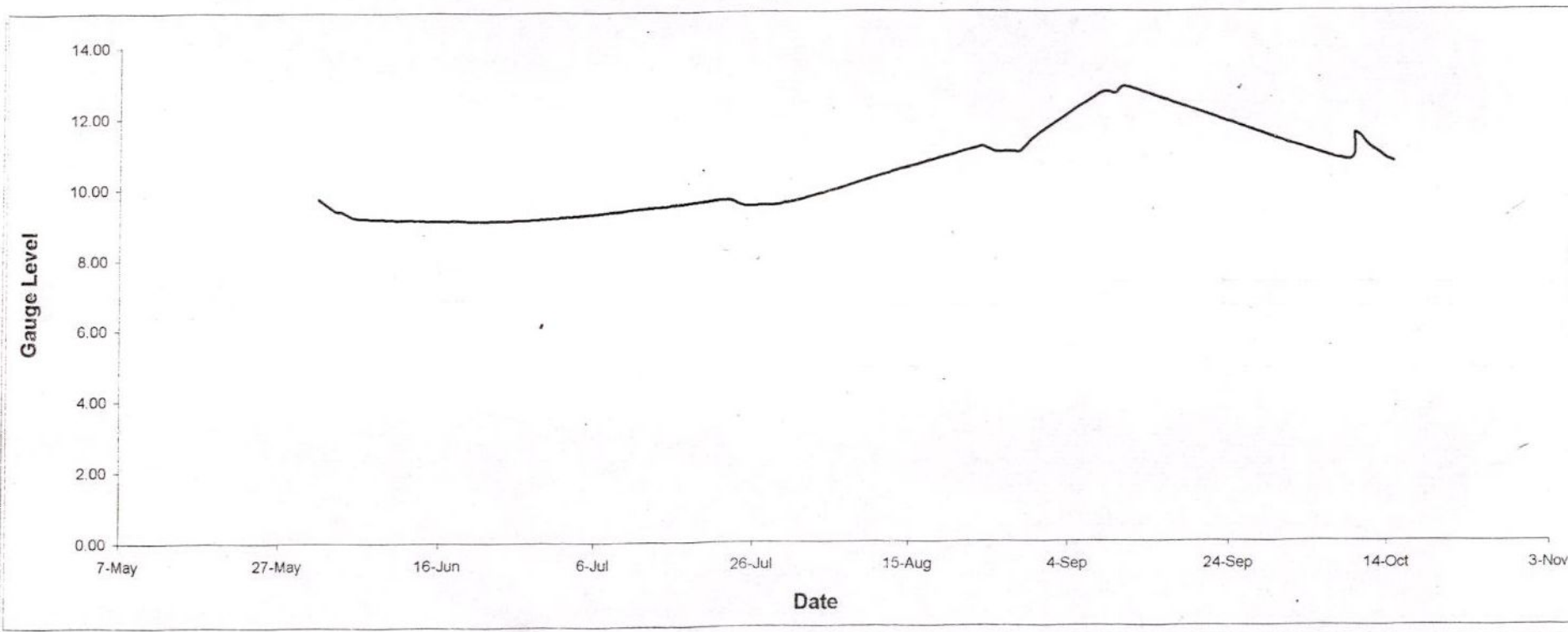
River-BHAGIRAYHI-HOOGHLY

Gauge- Katwa

Extreme Danger Level -14.32 metre

Danger level -13.71 metre

At 6.00 AM



1-Jun	3-Jun	4-Jun	5-Jun	6-Jun	27-Jun	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	31-Jul	24-Aug	25-Aug	26-Aug
9.73	9.40	9.34	9.24	9.18	9.11	9.68	9.58	9.50	9.50	9.51	9.60	11.15	11.08	11.00
28-Aug	29-Aug	31-Aug	8-Sep	9-Sep	10-Sep	11-Sep	13-Sep	14-Sep	9-Oct	10-Oct	12-Oct	13-Oct	14-Oct	15-Oct
10.99	11.01	11.45	12.65	12.70	12.65	12.83	12.71	12.64	10.74	11.50	11.10	10.96	10.78	10.70

Gauge Levels of important rivers during season of 2009

Southh Bengal River

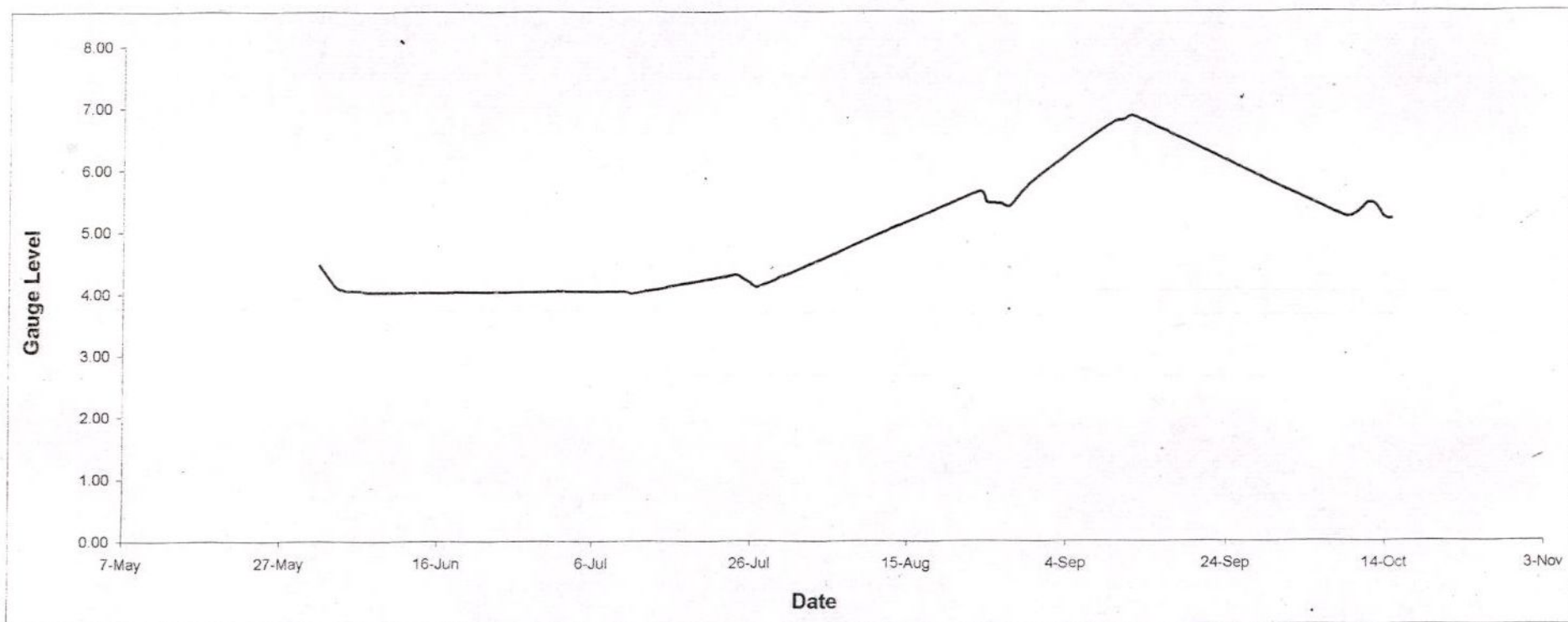
River-BHAGIRAYHI-HOOGHLY

Gauge- Kalna

Extreme Danger Level -8.24 metre

Danger level -7.63 metre

At 6.00 AM



1-Jun	3-Jun	4-Jun	5-Jun	6-Jun	8-Jun	10-Jul	11-Jul	24-Jul	25-Jul	26-Jul	27-Jul	24-Aug	25-Aug	26-Aug
4.46	4.12	4.06	4.05	4.05	4.02	4.04	4.01	4.31	4.25	4.16	4.12	5.65	5.48	5.46
27-Aug	28-Aug	31-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	9-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
5.44	5.41	5.83	6.71	6.75	6.80	6.87	6.82	6.76	5.24	5.34	5.46	5.42	5.23	5.20

Gauge Levels of important rivers during season of 2009

Southh Bengal River

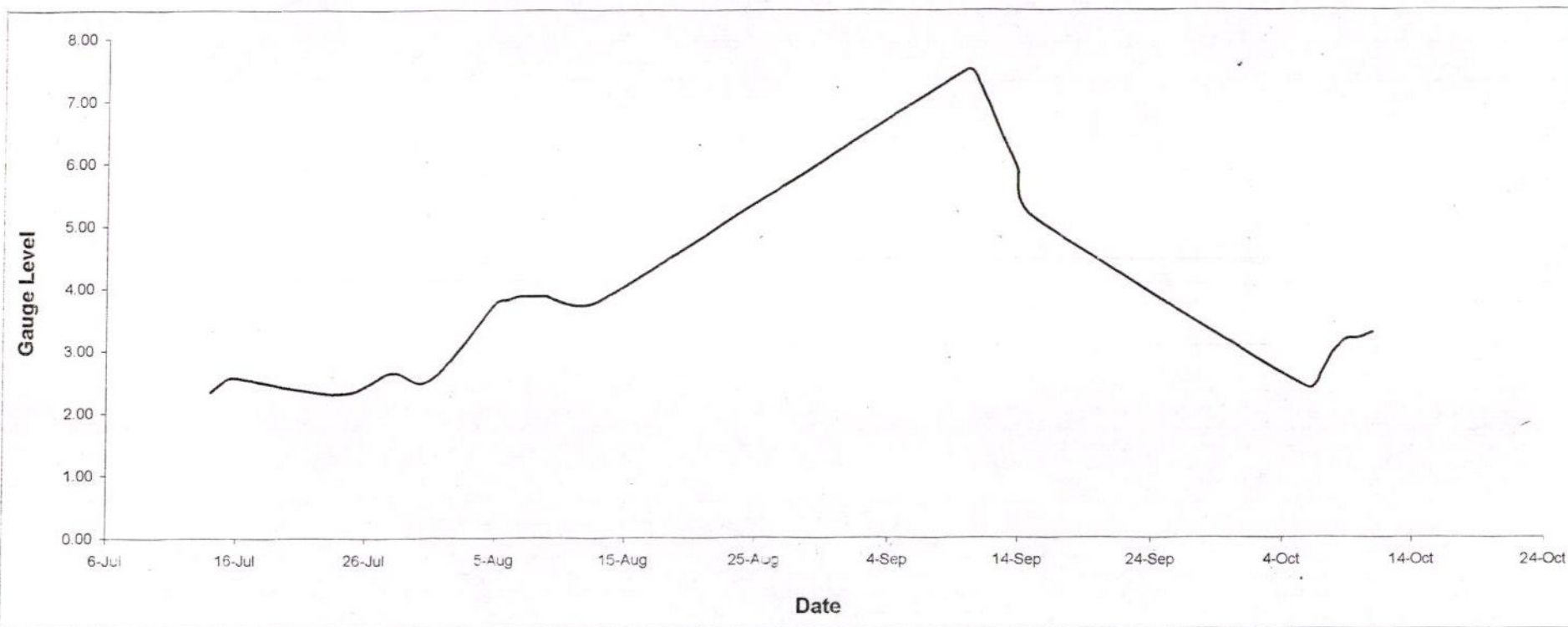
River-RUPNARAYAN

Gauge- Ranichak

Extreme Danger Level -5.94 metre

Danger level -5.33 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	14-Jul	15-Jul	16-Jul	24-Jul	28-Jul	31-Jul	5-Aug	6-Aug	7-Aug
0.00	0.00	0.00	0.00	0.00	0.00	2.34	2.50	2.56	2.30	2.65	2.53	3.75	3.81	3.87
8-Aug	9-Aug	13-Aug	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct
3.87	3.87	3.78	7.49	7.25	6.81	6.33	5.88	5.15	2.40	2.62	2.98	3.17	3.20	3.26

Gauge Levels of important rivers during season of 2009

Southh Bengal River

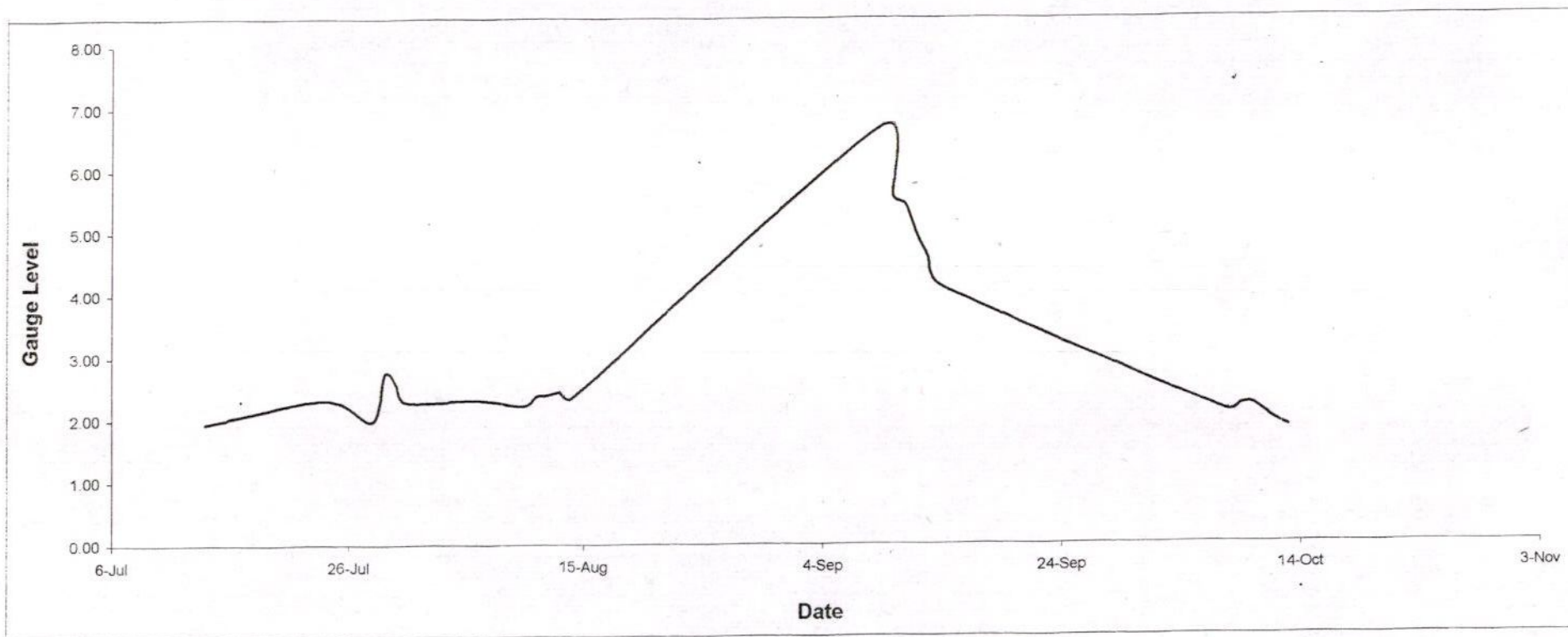
River-RUPNARAYAN

Gauge- Gopiganj

Extreme Danger Level -5.64 metre

Danger level -5.03 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	14-Jul	24-Jul	28-Jul	29-Jul	30-Jul	31-Jul	6-Aug	10-Aug	11-Aug
0.00	0.00	0.00	0.00	0.00	0.00	1.94	2.31	1.98	2.74	2.59	2.28	2.31	2.22	2.37
12-Aug	13-Aug	14-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
2.40	2.44	2.34	6.69	5.57	5.45	4.97	4.57	4.14	2.10	2.19	2.22	2.10	1.95	1.86

Gauge Levels of important rivers during season of 2009

Southh Bengal River

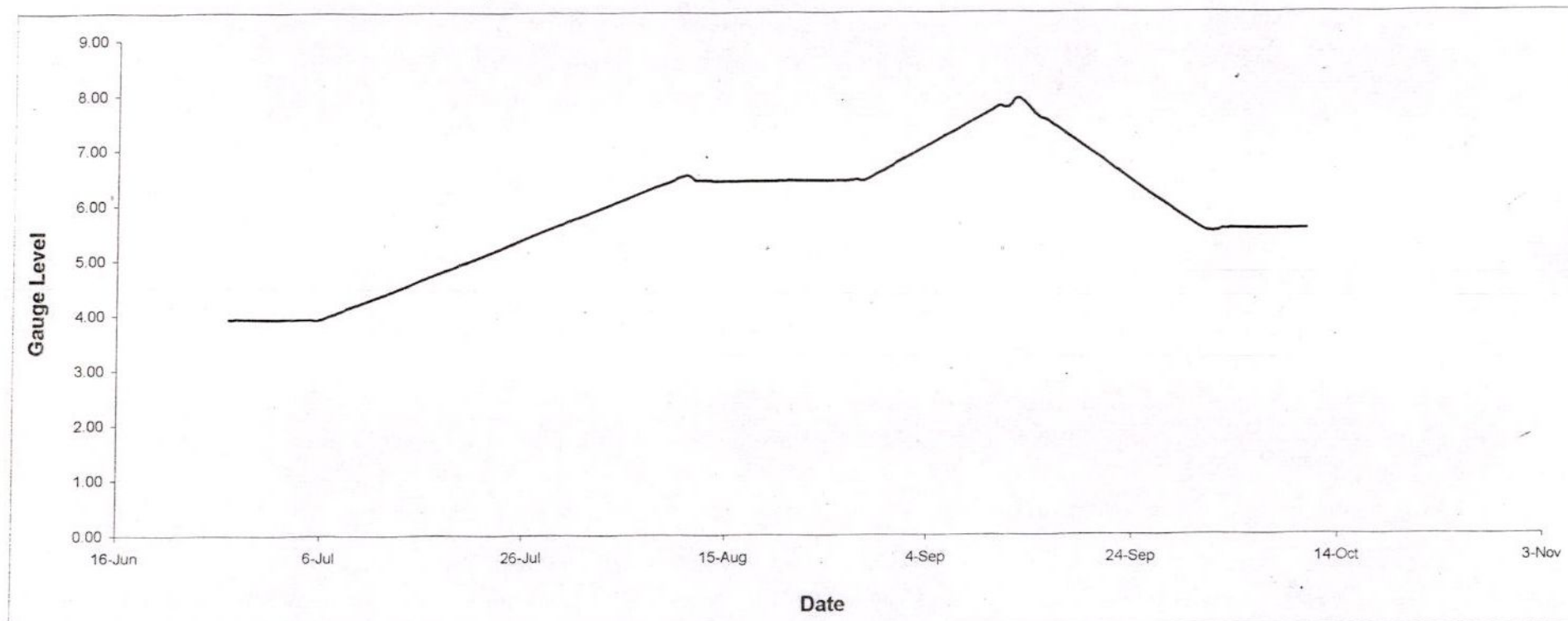
River-24 PARGANAS & KOLKATA

Gauge- Ichamati/Mejdia

Extreme Danger Level -8.41 metre

Danger level -7.824 metre

At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	27-Jun	1-Jul	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	11-Aug	12-Aug	26-Aug
0.00	0.00	0.00	0.00	0.00	3.93	3.93	3.93	3.93	3.93	3.93	3.93	6.53	6.44	6.44
27-Aug	28-Aug	29-Aug	10-Sep	11-Sep	12-Sep	13-Sep	15-Sep	16-Sep	1-Oct	3-Oct	4-Oct	5-Oct	6-Oct	11-Oct
6.44	6.46	6.46	7.68	7.79	7.76	7.93	7.58	7.50	5.55	5.55	5.55	5.55	5.55	5.55

Gauge Levels of important rivers during season of 2009

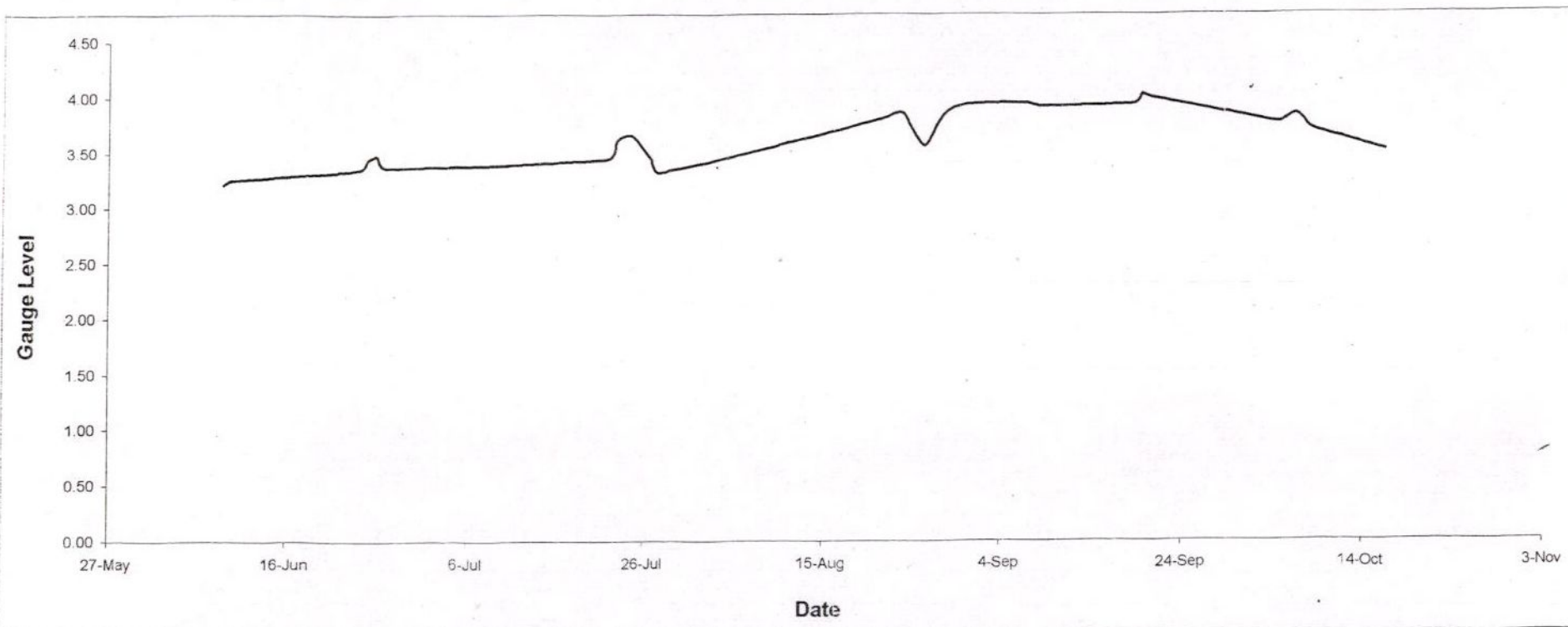
South Bengal River

River-24 PARGANAS & KOLKATA

Gauge- Ichamati/Tentulia

Extreme Danger Level -5.1 metre

At 6.00 AM



9-Jun	10-Jun	24-Jun	25-Jun	26-Jun	27-Jun	22-Jul	23-Jul	24-Jul	25-Jul	27-Jul	28-Jul	21-Aug	24-Aug	25-Aug
3.22	3.25	3.35	3.44	3.47	3.37	3.44	3.60	3.65	3.64	3.44	3.32	3.78	3.86	3.76
26-Aug	27-Aug	30-Aug	7-Sep	8-Sep	9-Sep	19-Sep	20-Sep	21-Sep	5-Oct	6-Oct	7-Oct	8-Oct	9-Oct	17-Oct
3.63	3.57	3.90	3.94	3.92	3.91	3.93	4.02	3.99	3.77	3.80	3.84	3.78	3.70	3.51

Gauge Levels of important rivers during season of 2009

Southh Bengal River

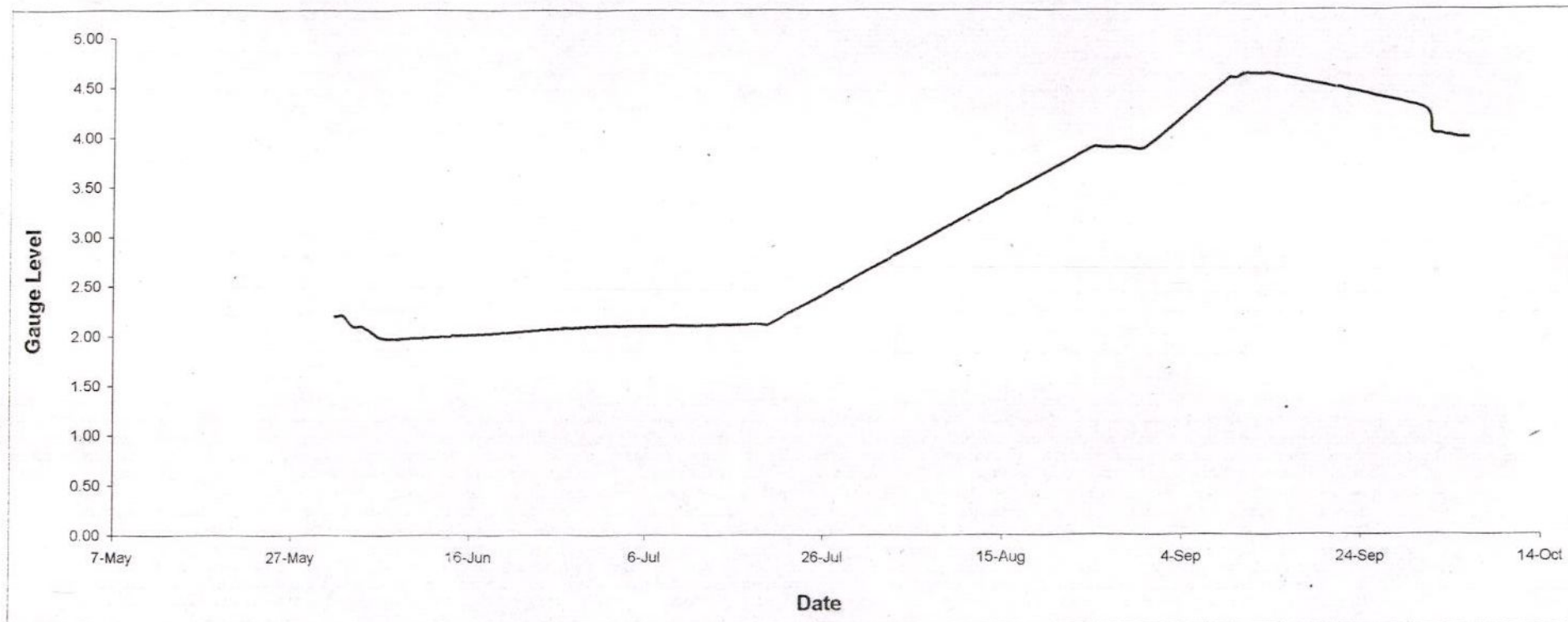
River-24 PARGANAS & KOLKATA

Gauge- Ichamati/Bongaon

Extreme Danger Level -5.675 metre

Danger level -5.075 metre

At 6.00 AM



1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	7-Jun	1-Jul	2-Jul	3-Jul	7-Jul	19-Jul	20-Jul	25-Aug	26-Aug	27-Aug
2.20	2.20	2.10	2.10	2.05	1.97	2.10	2.10	2.10	2.10	2.12	2.12	3.89	3.89	3.89
28-Aug	29-Aug	31-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct
3.89	3.89	3.89	4.57	4.59	4.63	4.63	4.63	4.63	4.29	4.05	4.03	4.01	3.99	3.99

Gauge Levels of important rivers during season of 2009

Southh Bengal River

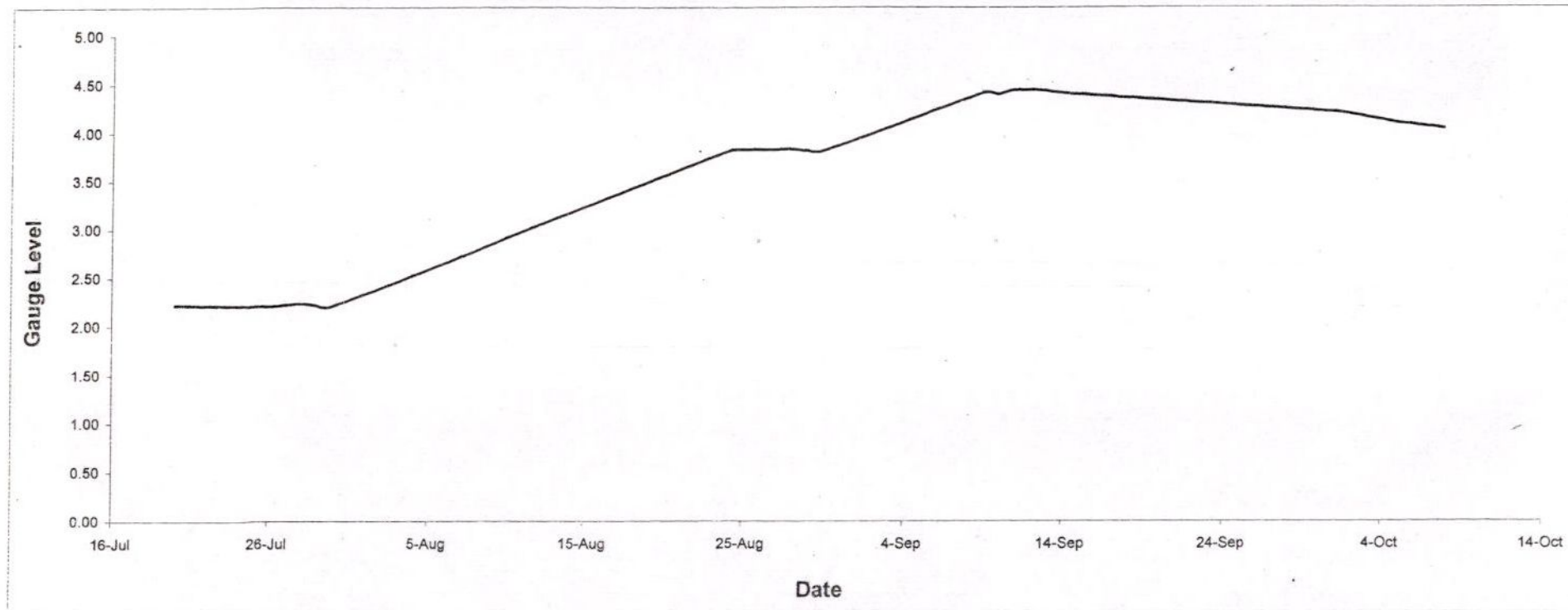
River-24 PARGANAS & KOLKATA

Gauge- Jamuna/Gaighata

Extreme Danger Level -4.5 metre

Danger level -3.9 metre

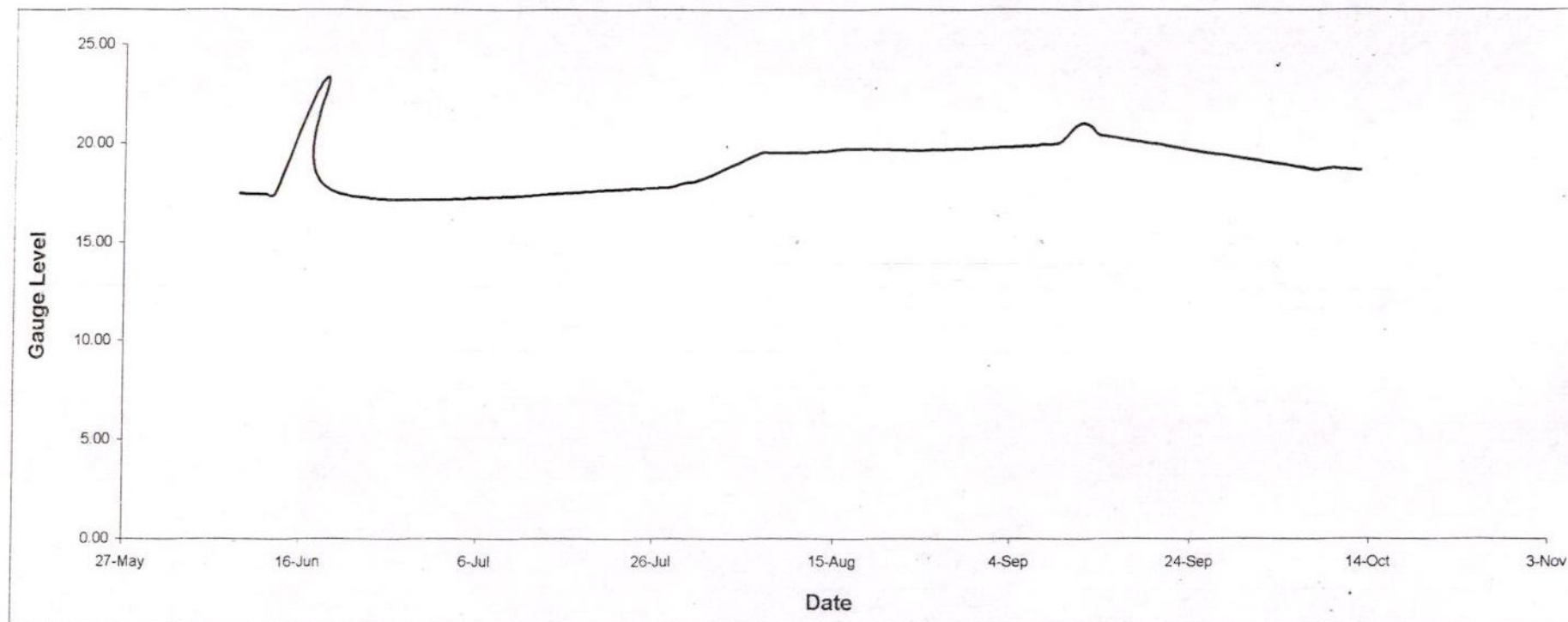
At 6.00 AM



0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	0-Jan	20-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	24-Aug	25-Aug	27-Aug
0.00	0.00	0.00	0.00	0.00	0.00	2.22	2.21	2.22	2.24	2.22	2.21	3.80	3.82	3.82
28-Aug	29-Aug	30-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	1-Oct	2-Oct	5-Oct	6-Oct	7-Oct	8-Oct
3.83	3.81	3.81	4.40	4.35	4.43	4.43	4.43	4.40	4.21	4.19	4.10	4.08	4.06	4.04

Gauge Levels of important rivers during season of 2009

Southh Bengal River

River- KUYA
Gauge- TarapurExtreme Danger Level -23.35 metre
Danger level -22.71 metre
At 6.00 AM

9-Jun	10-Jun	12-Jun	13-Jun	19-Jun	20-Jun	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	7-Aug	8-Aug	13-Aug
17.46	17.41	17.40	17.40	23.32	17.49	17.71	17.73	17.77	17.90	18.03	18.08	19.48	19.48	19.53
17-Aug	24-Aug	25-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
19.68	19.60	19.61	19.92	20.24	20.74	20.96	20.78	20.39	18.64	18.70	18.74	18.70	18.67	18.63

Gauge Levels of important rivers during season of 2009

Southh Bengal River

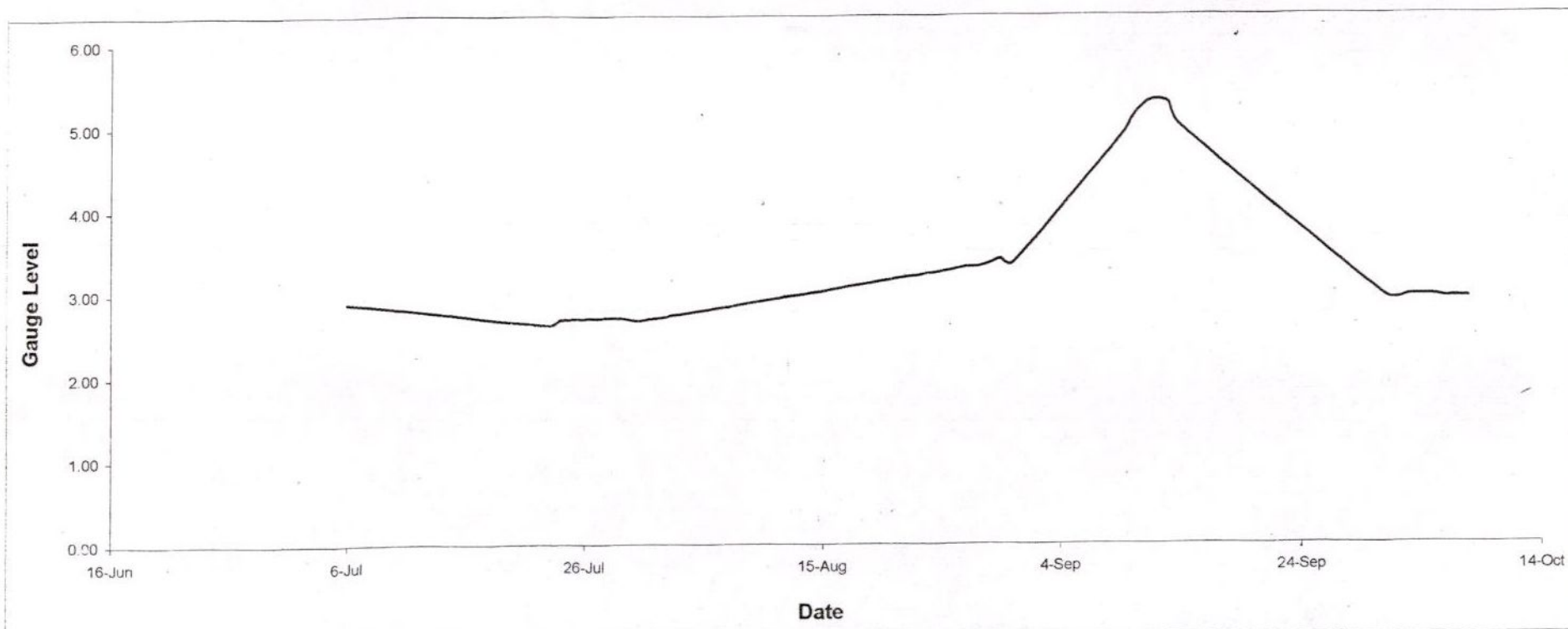
River- CHANDIA

Gauge- Barisha

Extreme Danger Level -5.0 metre

Danger level -4.55 metre

At 6.00 AM



2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	7-Jun	6-Jul	23-Jul	24-Jul	29-Jul	30-Jul	31-Jul	26-Aug	27-Aug	28-Aug
						2.90	2.63	2.69	2.72	2.69	2.69	3.29	3.32	3.32
29-Aug	30-Aug	31-Aug	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	1-Oct	3-Oct	5-Oct	6-Oct	7-Oct	8-Oct
3.36	3.42	3.36	4.87	5.11	5.27	5.32	5.27	4.99	2.97	2.97	2.97	2.94	2.94	2.94

DURGAPUR BARRAGE

At 6.00 A.M

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
27-May	64.46/211.50	N.A.	N.A.
28-May	64.46/211.50	N.A.	N.A.
29-May	64.46/211.50	64.465"	44.604
30-May	64.46/211.50	64.465"	N.A.
1-Jun	64.46/211.50	64.465"	60.888
2-Jun	64.46/211.50	64.465"	35.277
3-Jun	64.46/211.50	64.465"	33.270
4-Jun	64.46/211.50	64.465"	33.276
5-Jun	64.46/211.50	64.465"	1.416
6-Jun	64.46/211.50	64.465"	N.A.
7-Jun	64.46/211.50	64.465"	N.A.
8-Jun	64.46/211.50	64.465"	33.276
9-Jun	64.46/211.50	64.465"	33.276
10-Jun	64.46/211.50	64.465"	33.276
11-Jun	64.46/211.50	64.465"	33.276
12-Jun	64.46/211.50	64.465"	82.128
13-Jun	64.46/211.50	64.465"	33.276
14-Jun	64.46/211.50	64.465"	33.276
15-Jun	64.46/211.50	64.465"	33.276
16-Jun	64.46/211.50	64.465"	N.A.
17-Jun	64.46/211.50	64.465"	31.490
18-Jun	64.46/211.50	64.465"	47.436
19-Jun	64.46/211.50	64.465"	33.276
20-Jun	64.46/211.50	64.465"	N.A.
21-Jun	64.46/211.50	64.465"	
22-Jun	64.46/211.50	64.465"	33.276
23-Jun	64.46/211.50	64.465"	1.416
24-Jun	64.46/211.50	64.465"	30.444
25-Jun	64.46/211.50	64.465"	33.276
26-Jun	64.46/211.50	64.465"	14.160
27-Jun	64.46/211.50	64.465"	33.280
28-Jun	64.46/211.50	64.465"	1.420
29-Jun	64.46/211.50	64.465"	1.420
30-Jun	64.46/211.50	64.465"	1.420
1-Jul	64.46/211.50	64.465"	33.276
2-Jul	64.46/211.50	64.465"	33.276
3-Jul	64.46/211.50	64.465"	47.436
4-Jul	64.46/211.50	64.465"	33.276
5-Jul	64.46/211.50	64.465"	33.276
6-Jul	64.46/211.50	64.465"	1.416
7-Jul	64.46/211.50	64.465"	67.968
8-Jul	64.46/211.50	64.465"	98.412
9-Jul	64.46/211.50	64.465"	66.552
10-Jul	64.46/211.50	64.465"	30.444
11-Jul	64.46/211.50	64.465"	30.444
12-Jul	64.46/211.50	64.465"	N.A.
13-Jul	64.46/211.50	64.465"	33.276
14-Jul	64.46/211.50	64.465"	33.276
15-Jul	64.46/211.50	64.465"	33.276

DURGAPUR BARRAGE

At 6.00 A.M

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
16-Jul	64.46/211.50	64.465"	33.276
17-Jul	64.46/211.50	64.465"	33.276
18-Jul	64.46/211.50	64.465"	1.416
19-Jul	64.46/211.50	64.465"	1.416
20-Jul	64.46/211.50	64.465"	1.416
21-Jul	64.46/211.50	64.465"	1.416
22-Jul	64.46/211.50	64.465"	30.444
23-Jul	64.46/211.50	64.465"	30.444
24-Jul	64.46/211.50	64.465"	30.444
25-Jul	64.46/211.50	64.465"	30.444/
26-Jul	64.46/211.50	64.465"	30.444
27-Jul	64.46/211.50	64.465"	1.416
28-Jul	64.46/211.50	64.465"	1.416
29-Jul	64.46/211.50	64.465"	30.444
30-Jul	64.46/211.50	64.465"	63.72
31-Jul	64.46/211.50	64.465"	63.725
1-Aug	"64.46/211.50"	64.465"	63.720
2-Aug	"64.46/211.50"	64.465"	124.608
3-Aug	"64.46/211.50"	64.465"	257.712
4-Aug	"64.46/211.50"	64.465"	494.184
5-Aug	"64.46/211.50"	64.465"	243.552
6-Aug	"64.46/211.50"	64.465	182.664
7-Aug	"64.46/211.50"	64.465	159.30
8-Aug	"64.46/211.50"	64.456	152.22
9-Aug	"64.46/211.50"	64.456	243.550
10-Aug	"64.46/211.50"	64.465	121.776
11-Aug	"64.46/211.50"	64.465	121.776
12-Aug	"64.46/211.50"	64.465	1.416
13-Aug	"64.46/211.50"	64.465	1.416
14-Aug	"64.46/211.50"	N.A.	379.488
15-Aug	"64.46/211.50"	64.465	182.6
16-Aug	"64.46/211.50"	64.465	121.776
17-Aug	"64.46/211.50"	64.456	60.888
18-Aug	"64.46/211.50"	64.465	89.208
19-Aug	"64.46/211.50"	64.465	60.888
20-Aug	"64.46/211.50"	64.465	33.276
21-Aug	"64.46/211.50"	64.465	94.164
22-Aug	"64.46/211.50"	64.465	182.664
23-Aug	"64.46/211.50"	64.465	121.773
24-Aug	"64.46/211.50"	64.465	121.776
25-Aug	"64.46/211.50"	64.465	60.888
26-Aug	"64.46/211.50"	64.465	121.776
27-Aug	"64.46/211.50"	64.465	121.776
28-Aug	"64.46/211.50"	64.465	121.776
1-Sep	"64.46/211.50"	64.465	243.552
2-Sep	"64.46/211.50"	64.465	121.776
3-Sep	"64.46/211.50"	64.465	60.888
4-Sep	"64.46/211.50"	64.373	1.416
5-Sep	"64.46/211.50"	64.465	1.416

DURGAPUR BARRAGE

At 6.00 A.M

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
6-Sep	"64.46/211.50"	64.465	100.536
7-Sep	"64.46/211.50"	64.465	916.152
8-Sep	"64.46/211.50"	64.465	916.152
9-Sep	"64.46/211.50"	63.703	5620.810
10-Sep	"64.46/211.50"	63.703	3591.684
11-Sep	"64.46/211.50"	63.703	1767.876
12-Sep	"64.46/211.50"	64.465	1232.628
13-Sep	"64.46/211.50"	64.465	76.808
14-Sep	"64.46/211.50"	64.465	640.032
15-Sep	"64.46/211.50"	64.465	457.368
16-Sep	"64.46/211.50"	64.465	457.368
17-Sep	"64.46/211.50"	64.465	121.776
18-Sep	"64.46/211.50"	64.465	121.776
19-Sep	"64.46/211.50"	-	4310 ac.ft
20-Sep	"64.46/211.50"	N.A.	426.216
21-Sep	"64.46/211.50"	N.A.	487.104
22-Sep	"64.46/211.50"	64.465	426.216
23-Sep	"64.46/211.50"	64.465	426.216
24-Sep	"64.46/211.50"	64.465	426.216
25-Sep	"64.46/211.50"	64.465	426.216
26-Sep	"64.46/211.50"	64.465	426.216
27-Sep	"64.46/211.50"	64.465	426.216
28-Sep	"64.46/211.50"	64.465	426.216
29-Sep	"64.46/211.50"	64.465	426.216
30-Sep	"64.46/211.50"	64.465	30.444
1-Oct	"64.46/211.50"	64.465	1.416
2-Oct	"64.46/211.50"	64.465	1.416
3-Oct	"64.46/211.50"	64.465	121.776
4-Oct	"64.46/211.50"	64.465	121.776
5-Oct	"64.46/211.50"	64.465	365.328
6-Oct	"64.46/211.50"	64.312	814.908
7-Oct	"64.46/211.50"	64.312	860.220
8-Oct	"64.46/211.50"	64.312	708.000
9-Oct	"64.46/211.50"	64.465	304.440
10-Oct	"64.46/211.50"	64.465	182.664
11-Oct	"64.46/211.50"	64.465	1.416
12-Oct	"64.46/211.50"	64.465	1.416
13-Oct	"64.46/211.50"	64.465	1.416
14-Oct	"64.46/211.50"	N.A.	N.A.
15-Oct	"64.46/211.50"	N.A.	N.A.
16-Oct	"64.46/211.50"	N.A.	N.A.

TILPARA BARRAGE

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
27-May	62.79/206.00	61.692	N.A.
28-May	62.79/206.00	61.692	N.A.
29-May	62.79/206.00	61.692	NIL
30-May	62.79/206.00	N.A.	N.A.
1-Jun	62.79/206.00	58.5 102.100	N.A.
2-Jun	62.79/206.00	58.125	N.A.
3-Jun	62.79/206.00	58.064	N.A.
4-Jun	62.79/206.00	58.060	NIL
5-Jun	62.79/206.00	58.064	NIL
6-Jun	62.79/206.00	58.064	Does not arise
7-Jun	62.79/206.00	N.A.	N.A.
8-Jun	62.79/206.00	Below Pond Level	NIL
9-Jun	62.79/206.00	58.064	NIL
10-Jun	62.79/206.00	58.064	NIL
11-Jun	62.79/206.00	58.064'	NIL
12-Jun	62.79/206.00	58.064'	NIL
13-Jun	62.79/206.00	58.064'	NIL
14-Jun	62.79/206.00	58.064'	NIL
15-Jun	62.79/206.00	58.064'	NIL
16-Jun	62.79/206.00	58.064'	NIL
17-Jun	62.79/206.00	58.064'	NIL
18-Jun	62.79/206.00	58.064'	NIL
19-Jun	62.79/206.00	58.064'	NIL
20-Jun	62.79/206.00	58.064'	NIL
22-Jun	62.79/206.00	58.064'	NIL
23-Jun	62.79/206.00	58.064'	NIL
24-Jun	62.79/206.00	58.064'	NIL
25-Jun	62.79/206.00	58.064'	NIL
26-Jun	62.79/206.00	58.064'	NIL
27-Jun	62.79/206.00	58.064'	NIL
28-Jun	62.79/206.00	58.064'	NIL
29-Jun	62.79/206.00	58.064'	NIL
30-Jun	62.79/206.00	58.064'	NIL
1-Jul	62.79/206.00	58.064'	Dewatering
2-Jul	62.79/206.00	58.064'	Dewatering
3-Jul	62.79/206.00	58.064'	Dewatering
4-Jul	62.79/206.00	58.064'	NIL
5-Jul	62.79/206.00	58.064'	N.A.
6-Jul	62.79/206.00	58.064'	NIL
7-Jul	62.79/206.00	58.064'	NIL
8-Jul	62.79/206.00	58.064'	NIL
9-Jul	62.79/206.00	58.064'	NIL
10-Jul	62.79/206.00	58.064'	Dewatering
11-Jul	62.79/206.00	58.064'	N.A.
12-Jul	62.79/206.00	58.064'	NIL
13-Jul	62.79/206.00	58.064'	NIL
14-Jul	62.79/206.00	58.064'	Dewatering
15-Jul	62.79/206.00	58.064'	N.A.

TILPARA BARRAGE

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
16-Jul	62.79/206.00	58.064'	N.A.
17-Jul	62.79/206.00	58.064'	N.A.
18-Jul	62.79/206.00	58.064'	NIL
19-Jul	62.79/206.00	58.064'	NIL
20-Jul	62.79/206.00	59.741	N.A.
21-Jul	62.79/206.00	62.271	N.A.
22-Jul	62.79/206.00	62.423	NIL
23-Jul	62.79/206.00	62.484	NIL
24-Jul	62.79/206.00	62.636	NIL
25-Jul	62.79/206.00	62.260	NIL
26-Jul	62.79/206.00	N.A.	N.A.
27-Jul	62.79/206.00	61.448	NIL
28-Jul	62.79/206.00	61.600	NIL
29-Jul	62.79/206.00	61.722	NIL
30-Jul	62.79/206.00	61.935	NIL
31-Jul	62.79/206.00	62.240	NIL
1-Aug	62.79/206.00	61.996	N.A.
2-Aug	62.79/206.00	61.831	NIL
3-Aug	62.79/206.00	62.393	NIL
4-Aug	62.79/206.00	62.271	NIL
5-Aug	62.79/206.00	61.661	NIL
6-Aug	62.79/206.00	62.179	NIL
7-Aug	62.79/206.00	62.088	NIL
8-Aug	62.79/206.00	62.118	NIL
9-Aug	62.79/206.00	62.179	NIL
10-Aug	62.79/206.00	62.545	
11-Aug	62.79/206.00	61.966	NIL
12-Aug	62.79/206.00	61.722	NIL
13-Aug	62.79/206.00	62.789	19.120
14-Aug	62.79/206.00	N.A.	N.A.
15-Aug	62.79/206.00	N.A.	N.A.
16-Aug	62.79/206.00	61.631	NIL
17-Aug	62.79/206.00	62.545	NIL
18-Aug	62.79/206.00	62.393	62.30
19-Aug	62.79/206.00	N.A.	N.A.
20-Aug	62.79/206.00	61.752	NIL
21-Aug	62.79/206.00	61.813	28.32
22-Aug	62.79/206.00	62.118	28.32
23-Aug	62.79/206.00	62.088	28.32
24-Aug	62.79/206.00	N.A.	N.A.
25-Aug	62.79/206.00	61.935	14.16
26-Aug	62.79/206.00	61.905	NIL
27-Aug	62.79/206.00	62.240	NIL
28-Aug	62.79/206.00	62.484	NIL
1-Sep	62.79/206.00	61.752	NIL
2-Sep	62.79/206.00	62.240	NIL
3-Sep	62.79/206.00	62.393	NIL
4-Sep	62.79/206.00	62.393	NIL

TILPARA BARRAGE

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
5-Sep	62.79/206.00	62.362	28.32
6-Sep	62.79/206.00	62.362	NIL
7-Sep	62.79/206.00	62.149	169.81
8-Sep	62.79/206.00	62.149	169.81
9-Sep	62.79/206.00	61.874	110.79
10-Sep	62.79/206.00	61.692	212.74
11-Sep	62.79/206.00	61.935	111.835
12-Sep	62.79/206.00	62.454	29.74
13-Sep	62.79/206.00	62.758	22.66
14-Sep	62.79/206.00	62.636	28.32
15-Sep	62.79/206.00	62.179	NIL
16-Sep	62.79/206.00	62.179	NIL
17-Sep	62.79/206.00	62.088	NIL
18-Sep	62.79/206.00	62.088	NIL
19-Sep	62.79/206.00	62.430	NIL
20-Sep	62.79/206.00	N.A.	N.A.
21-Sep	62.79/206.00	N.A.	NIL
22-Sep	62.79/206.00	62.149	NIL
23-Sep	62.79/206.00	61.874	NIL
24-Sep	62.79/206.00	61.874	NIL
25-Sep	62.79/206.00	61.874	NIL
26-Sep	62.79/206.00	61.874	NIL
27-Sep	62.79/206.00	61.874	NIL
28-Sep	62.79/206.00	61.874	NIL
29-Sep	62.79/206.00	61.874	NIL
30-Sep	62.79/206.00	61.570	19.83
1-Oct	62.79/206.00	62.118	N.A.
2-Oct	62.79/206.00	62.545	NIL
3-Oct	62.79/206.00	62.636	113.28
4-Oct	62.79/206.00	62.636	NIL
5-Oct	62.79/206.00	62.484	NIL
6-Oct	62.79/206.00	62.606	NIL
7-Oct	62.79/206.00	62.575	N.A.
8-Oct	62.79/206.00	62.595	N.A.
9-Oct	62.79/206.00	62.514	NIL
10-Oct	62.79/206.00	62.575	NIL
11-Oct	62.79/206.00	62.606	131.69
12-Oct	62.79/206.00	62.636	NIL
13-Oct	62.79/206.00	62.636	N.A.
14-Oct	62.79/206.00	N.A.	N.A.
15-Oct	62.79/206.00	N.A.	N.A.
16-Oct	62.79/206.00	N.A.	N.A.

PANCHET DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN Metre	OUTFLOW IN CUMEC.
	3	4	5
27-May	124.97/410.00	N.A.	N.A.
28-May	124.97/410.00	N.A.	N.A.
29-May	124.97/410.00	N.A.	N.A.
30-May	124.97/410.00	N.A.	N.A.
1-Jun	124.97/410.00	N.A.	N.A.
4-Jun	124.97/410.00	N.A.	N.A.
5-Jun	124.97/410.00	N.A.	N.A.
6-Jun	124.97/410.00	N.A.	N.A.
7-Jun	124.97/410.00	N.A.	N.A.
8-Jun	124.97/410.00	N.A.	N.A.
9-Jun	124.97/410.00	N.A.	N.A.
10-Jun	124.97/410.00	120.52	200
11-Jun	124.97/410.00	120.41	42.56
12-Jun	124.97/410.00	N.A.	N.A.
13-Jun	124.97/410.00	N.A.	N.A.
14-Jun	124.97/410.00	N.A.	N.A.
15-Jun	124.97/410.00	120.35	NIL
16-Jun	124.97/410.00	N.A.	N.A.
17-Jun	124.97/410.00	120.35	10.900
18-Jun	124.97/410.00	120.34	10.900
19-Jun	124.97/410.00	120.32	10.902
20-Jun	124.97/410.00	N.A.	N.A.
22-Jun	124.97/410.00	120.26	10.890
23-Jun	124.97/410.00	120.24	NIL
24-Jun	124.97/410.00	120.22	N.A.
25-Jun	124.97/410.00	120.18	13.650
26-Jun	124.97/410.00	120.15	12.980
27-Jun	124.97/410.00	120.1	25.560
28-Jun	124.97/410.00	120.06	0.000
29-Jun	124.97/410.00	120.06	12.980
30-Jun	124.97/410.00	120.06	12.980
1-Jul	124.97/410.00	120.08	13.000
2-Jul	124.97/410.00	120.12	13.120
3-Jul	124.97/410.00	120.17	N.A.
4-Jul	124.97/410.00	120.23	NIL
5-Jul	124.97/410.00	120.48	NIL
6-Jul	124.97/410.00	120.69	12.980
7-Jul	124.97/410.00	N.A.	N.A.
8-Jul	124.97/410.00	120.79	N.A.
9-Jul	124.97/410.00	120.82	N.A.
10-Jul	124.97/410.00	120.86	N.A.
11-Jul	124.97/410.00	120.96	N.A.
12-Jul	124.97/410.00	121.19	NIL
13-Jul	124.97/410.00	121.38	N.A.
14-Jul	124.97/410.00	121.48	N.A.
15-Jul	124.97/410.00	121.54	N.A.
16-Jul	124.97/410.00	121.58	N.A.
17-Jul	124.97/410.00	121.65	N.A.
18-Jul	124.97/410.00	121.69	150.000

PANCHET DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL	RESERVOIR LEVEL IN	OUTFLOW IN CUMEC.
	LEVEL IN M./FT.	Metre	
19-Jul	124.97/410.00	121.76	N.A.
20-Jul	124.97/410.00	121.84	N.A.
21-Jul	124.97/410.00	122.11	N.A.
22-Jul	124.97/410.00	122.29	NIL
23-Jul	124.97/410.00	122.36	N.A.
24-Jul	124.97/410.00	122.4	N.A.
25-Jul	124.97/410.00	122.45	133.000
26-Jul	124.97/410.00	122.49	113.000
27-Jul	124.97/410.00	122.51	N.A.
28-Jul	124.97/410.00	122.52	N.A.
29-Jul	124.97/410.00	122.6	N.A.
30-Jul	124.97/410.00	122.69	N.A.
31-Jul	124.97/410.00	122.76	N.A.
1-Aug	124.97/410.00	122.77	N.A.
2-Aug	124.97/410.00	122.82	13.120
3-Aug	124.97/410.00	122.92	N.A.
4-Aug	124.97/410.00	123.2	N.A.
5-Aug	124.97/410.00	123.32	N.A.
6-Aug	124.97/410.00	N.A.	N.A.
7-Aug	124.97/410.00	123.38	13.11
8-Aug	124.97/410.00	123.42	13.21
9-Aug	124.97/410.00	123.46	13.096
10-Aug	124.97/410.00	123.5	13.097
11-Aug	124.97/410.00	123.520	15.180
12-Aug	124.97/410.00	123.51	14.719
13-Aug	124.97/410.00	123.51	13.097
14-Aug	124.97/410.00	139.09	N.A.
15-Aug	124.97/410.00	123.610	N.A.
16-Aug	124.97/410.00	123.77	12.980
17-Aug	124.97/410.00	123.87	12.920
18-Aug	124.97/410.00	124.09	12.980
19-Aug	124.97/410.00	124.20	12.980
20-Aug	124.97/410.00	124.26	44.622
21-Aug	124.97/410.00	124.31	13.097
22-Aug	124.97/410.00	124.66	12.980
23-Aug	124.97/410.00	125.22	13.96
24-Aug	124.97/410.00	125.71	21.209
25-Aug	124.97/410.00	125.90	13.213
26-Aug	124.97/410.00	126.09	19.124
27-Aug	124.97/410.00	126.30	42.999
28-Aug	124.97/410.00	126.40	42.999
29-Aug	124.97/410.01	126.54	42.999
30-Aug	124.97/410.02	127.1	207.345
1-Sep	124.97/410.00	127.40	163.999
2-Sep	124.97/410.00	127.42	172.575
3-Sep	124.97/410.00	127.50	73.365
4-Sep	124.97/410.00	127.55	90.286
5-Sep	124.97/410.00	127.60	38.74
6-Sep	124.97/410.00	127.71	43.115
7-Sep	124.97/410.00	130.21	390.351

PANCHET DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL	RESERVOIR LEVEL IN	OUTFLOW IN CUMEC.
	LEVEL IN M./FT.	Metre	
8-Sep	124.97/410.00	130.21	390.351
9-Sep	124.97/410.00	129.47	4709.712
10-Sep	124.97/410.00	128.22	2559.652
11-Sep	124.97/410.00	127.84	1010.300
12-Sep	124.97/410.00	127.72	536.385
13-Sep	124.97/410.00	127.67	433.929
14-Sep	124.97/410.00	127.60	350.018
15-Sep	124.97/410.00	127.46	257.414
16-Sep	124.97/410.00	127.46	257.414
17-Sep	124.97/410.00	127.63	92.720
18-Sep	124.97/410.00	127.63	92.720
19-Sep	124.97/410.00	127.74	9179 ac.ft.
20-Sep	124.97/410.00	127.94	2034.000
21-Sep	124.97/410.00	127.89	N.A.
22-Sep	124.97/410.00	127.76	257.762
23-Sep	124.97/410.00	127.71	257.762
24-Sep	124.97/410.00	127.71	257.762
25-Sep	124.97/410.00	127.71	257.762
26-Sep	124.97/410.00	127.71	257.762
27-Sep	124.97/410.00	127.71	257.762
28-Sep	124.97/410.00	127.71	257.762
29-Sep	124.97/410.00	127.71	257.762
30-Sep	124.97/410.00	127.39	92.256
1-Oct	124.97/410.00	127.36	96.777
2-Oct	124.97/410.00	127.67	57.834
3-Oct	124.97/410.00	127.75	276.074
4-Oct	124.97/410.00	127.75	343.991
5-Oct	124.97/410.00	127.95	501.486
6-Oct	124.97/410.00	127.97	389.308
7-Oct	124.97/410.00	127.94	423.000
8-Oct	124.97/410.00	127.84	424.000
9-Oct	124.97/410.00	127.80	201.898
10-Oct	124.97/410.00	127.68	299.254
11-Oct	124.97/410.00	127.65	74.871
12-Oct	124.97/410.00	127.68	14.372
13-Oct	124.97/410.00	127.70	7.186
14-Oct	124.97/410.00	N.A.	N.A.
15-Oct	124.97/410.00	N.A.	N.A.
16-Oct	124.97/410.00	N.A.	N.A.

MASSANJORE DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
	3	4	5
27-May	121.34/398.00	109.149	N.A.
28-May	121.34/398.00	109.149	N.A.
29-May	121.34/398.00	109.149	NIL
30-May	121.34/398.00	N.A.	N.A.
1-Jun	121.34/398.00	109.420	N.A.
3-Jun	121.34/398.00	109.560	NIL
4-Jun	121.34/398.00	109.680	NIL
5-Jun	121.34/398.00	109.682	NIL
6-Jun	121.34/398.00	109.682	NIL
7-Jun	121.34/398.00	109.682	NIL
8-Jun	121.34/398.00	109.612	NIL
9-Jun	121.34/398.00	109.680	NIL
10-Jun	121.34/398.00	109.682	NIL
11-Jun	121.34/398.00	109.680	NIL
12-Jun	121.34/398.00	109.680	NIL
13-Jun	121.34/398.00	10.190	NIL
14-Jun	121.34/398.00	"109.682"	NIL
15-Jun	121.34/398.00	"109.682"	NIL
16-Jun	121.34/398.00	"109.682"	NIL
17-Jun	121.34/398.00	"109.682"	NIL
18-Jun	121.34/398.00	"109.682"	NIL
19-Jun	121.34/398.00	"109.682"	NIL
20-Jun	121.34/398.00	"109.682"	NIL
21-Jun	121.34/398.00	"109.682"	
22-Jun	121.34/398.00	"109.682"	NIL
23-Jun	121.34/398.00	"109.682"	NIL
24-Jun	121.34/398.00	"109.682"	NIL
25-Jun	121.34/398.00	"109.682"	NIL
26-Jun	121.34/398.00	"109.682"	NIL
27-Jun	121.34/398.00	"109.682"	0.00
28-Jun	121.34/398.00	"109.682"	0.000
29-Jun	121.34/398.00	"109.682"	NIL
30-Jun	121.34/398.00	"109.682"	NIL
1-Jul	121.34/398.00	109.758	NIL
2-Jul	121.34/398.00	109.774	NIL
3-Jul	121.34/398.00	109.805	NIL
4-Jul	121.34/398.00	109.850	NIL
5-Jul	121.34/398.00	109.941	N.A.
6-Jul	121.34/398.00	110.002	NIL
7-Jul	121.34/398.00	110.002	NIL
8-Jul	121.34/398.00	110.018	NIL
9-Jul	121.34/398.00	110.079	NIL
10-Jul	121.34/398.00	110.124	NIL
11-Jul	121.34/398.00	110.200	N.A.
12-Jul	121.34/398.00	110.240	NIL
13-Jul	121.34/398.00	110.322	NIL
14-Jul	121.34/398.00	N.A.	N.A.
15-Jul	121.34/398.00	N.A.	N.A.
16-Jul	121.34/398.00	N.A.	N.A.

MASSANJORE DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
17-Jul	121.34/398.00	N.A.	N.A.
18-Jul	121.34/398.00	N.A.	N.A.
19-Jul	121.34/398.00	N.A.	N.A.
20-Jul	121.34/398.00	N.A.	N.A.
21-Jul	121.34/398.00	N.A.	N.A.
22-Jul	121.34/398.00	N.A.	N.A.
23-Jul	121.34/398.00	N.A.	N.A.
24-Jul	121.34/398.00	111.572	NIL
25-Jul	121.34/398.00	111.700	NIL
26-Jul	121.34/398.00	111.700	NIL
27-Jul	121.34/398.00	111.679	NIL
28-Jul	121.34/398.00	111.694	NIL
29-Jul	121.34/398.00	111.709	NIL
30-Jul	121.34/398.00	111.720	NIL
31-Jul	121.34/398.00	111.740	NIL
1-Aug	121.34/398.00"	111.755	NIL
2-Aug	121.34/398.00"	111.755	NIL
3-Aug	121.34/398.00"	111.770	NIL
4-Aug	121.34/398.00"	111.785	NIL
5-Aug	121.34/398.00"	111.785	NIL
6-Aug	121.34/398.00"	111.816	NIL
7-Aug	121.34/398.00"	N.A.	N.A.
8-Aug	121.34/398.00"	111.816	NIL
9-Aug	121.34/398.00"	111.862	NIL
10-Aug	121.34/398.00"	111.877	
11-Aug	121.34/398.00"	111.892	NIL
12-Aug	121.34/398.00"	111.892	NIL
13-Aug	121.34/398.00"	112.044	NIL
14-Aug	121.34/398.00"	112.197	NIL
15-Aug	121.34/398.00"	112.258	NIL
16-Aug	121.34/398.00"	112.288	NIL
17-Aug	121.34/398.00"	112.319	NIL
18-Aug	121.34/398.00"	112.349	2.83
19-Aug	121.34/398.00"	112.365	NIL
20-Aug	121.34/398.00"	112.547	NIL
21-Aug	121.34/398.00"	112.639	NIL
22-Aug	121.34/398.00"	112.609	NIL
23-Aug	121.34/398.00"	112.700	NIL
24-Aug	121.34/398.00"	112.715	NIL
25-Aug	121.34/398.00"	112.746	NIL
26-Aug	121.34/398.00"	112.791	NIL
27-Aug	121.34/398.00"	112.898	NIL
1-Sep	121.34/398.00	113.264	NIL
2-Sep	121.34/398.00	113.340	NIL
3-Sep	121.34/398.00	113.401	NIL
4-Sep	121.34/398.00	113.523	NIL
5-Sep	121.34/398.00	113.620	NIL
6-Sep	121.34/398.00	113.767	NIL
7-Sep	121.34/398.00	114.300	NIL

MASSANJORE DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
8-Sep	121.34/398.00	114.300	NIL
9-Sep	121.34/398.00	114.971	NIL
10-Sep	121.34/398.00	116.830	NIL
11-Sep	121.34/398.00	117.348	NIL
12-Sep	121.34/398.00	117.531	89.323
13-Sep	121.34/398.00	117.622	NIL
14-Sep	121.34/398.00	117.668	NIL
15-Sep	121.34/398.00	117.714	NIL
16-Sep	121.34/398.00	117.714	NIL
17-Sep	121.34/398.00	117.851	NIL
18-Sep	121.34/398.00	117.851	NIL
19-Sep	121.34/398.00	387.3 F	NIL
20-Sep	121.34/398.00	N.A.	N.A.
21-Sep	121.34/398.00	118.278	NIL
22-Sep	121.34/398.00	118.323	NIL
23-Sep	121.34/398.00	118.354	NIL
24-Sep	121.34/398.00	118.354	NIL
25-Sep	121.34/398.00	118.354	NIL
26-Sep	121.34/398.00	118.354	NIL
27-Sep	121.34/398.00	118.354	NIL
28-Sep	121.34/398.00	118.354	NIL
29-Sep	121.34/398.00	118.354	NIL
30-Sep	121.34/398.00	118.506	NIL
1-Oct	121.34/398.00	118.537	NIL
2-Oct	121.34/398.00	118.262	142.343
3-Oct	121.34/398.00	118.171	93.486
4-Oct	121.34/398.00	118.171	48.669
5-Oct	121.34/398.00	118.445	0.989
6-Oct	121.34/398.00	119.238	61.265
7-Oct	121.34/398.00	119.314	N.A.
8-Oct	121.34/398.00	119.314	N.A.
9-Oct	121.34/398.00	119.162	116.212
10-Oct	121.34/398.00	119.024	126.315
11-Oct	121.34/398.00	118.842	N.A.
12-Oct	121.34/398.00	118.643	142.723
13-Oct	121.34/398.00	118.430	N.A.
14-Oct	121.34/398.00	N.A.	N.A.
15-Oct	121.34/398.00	N.A.	N.A.
16-Oct	121.34/398.00	N.A.	N.A.

TENUGHAT DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
27-May	263.66/865.00	N.A.	N.A.
28-May	263.66/865.00	N.A.	N.A.
29-May	263.66/865.00	N.A.	N.A.
30-May	263.66/865.01	N.A.	N.A.
1-Jun	263.66/865.00	N.A.	N.A.
3-Jun	263.66/865.00	N.A.	N.A.
4-Jun	263.66/865.00	N.A.	N.A.
5-Jun	263.66/865.00	N.A.	N.A.
6-Jun	263.66/865.00	N.A.	N.A.
7-Jun	263.66/865.00	N.A.	N.A.
8-Jun	263.66/865.00	N.A.	N.A.
9-Jun	263.66/865.00	N.A.	N.A.
10-Jun	263.66/865.00	N.A.	N.A.
11-Jun	263.66/865.00	N.A.	N.A.
12-Jun	263.66/865.00	N.A.	N.A.
13-Jun	263.66/865.00	N.A.	N.A.
14-Jun	263.66/865.00	N.A.	N.A.
15-Jun	263.66/865.00	N.A.	N.A.
16-Jun	263.66/865.00	355.22	1.6
18-Jun	263.66/865.00	255.18	4.45
19-Jun	263.66/865.00	255.08	1.6
22-Jun	263.66/865.00	255.01	4.422
23-Jun	263.66/865.00	255.96	NIL
25-Jun	263.66/865.00	254.89	4.42
26-Jun	263.66/865.00	254.85	4.42
27-Jun	263.66/865.00	254.81	8.8
28-Jun	263.66/865.00	254.81	0.000
29-Jun	263.66/865.00	254.81	4.42
30-Jun	263.66/865.00	254.81	4.42
1-Jul	263.66/865.00	254.85	4.42
2-Jul	263.66/865.00	254.9	4.42
3-Jul	263.66/865.00	254.98	1.59
4-Jul	263.66/865.00	255.06	1.6
5-Jul	263.66/865.00	255.15	1.6
7-Jul	263.66/865.00	255.29	4.47
8-Jul	263.66/865.00	255.38	N.A.
9-Jul	263.66/865.00	255.54	N.A.
10-Jul	263.66/865.00	255.73	N.A.
12-Jul	263.66/865.00	256.17	4.56
13-Jul	263.66/865.00	256.53	N.A.
14-Jul	263.66/865.00	256.73	N.A.
15-Jul	263.66/865.00	256.82	N.A.
16-Jul	263.66/865.00	256.85	N.A.
19-Jul	263.66/865.00	256.95	N.A.
20-Jul	263.66/865.00	257.28	N.A.
21-Jul	263.66/865.00	257.71	N.A.
22-Jul	263.66/865.00	257.74	NIL
23-Jul	263.66/865.00	257.83	N.A.
24-Jul	263.66/865.00	N.A.	N.A.

TENUGHAT DAM

6.00 A.M.

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
25-Jul	263.66/865.00	N.A.	N.A.
26-Jul	263.66/865.00	N.A.	N.A.
27-Jul	263.66/865.00	258.04	N.A.
28-Jul	263.66/865.00	258.06	N.A.
29-Jul	263.66/865.00	258.06	N.A.
31-Jul	263.66/865.00"	258.06	N.A.
1-Aug	263.66/865.00"	258.06	N.A.
2-Aug	263.66/865.00"	258.06	N.A.
3-Aug	263.66/865.00"	258.06	NIL
4-Aug	263.66/865.00"	258.06	N.A.
6-Aug	263.66/865.00"	257.98	4.78
8-Aug	263.66/865.00"	257.94	5.396
9-Aug	263.66/865.00"	257.91	5.758
10-Aug	263.66/865.00"	257.98	5.76
11-Aug	263.66/865.00"	258.03	5.786
12-Aug	263.66/865.00"	258.03	5.786
13-Aug	263.66/865.00"	258.090	5.79
14-Aug	263.66/865.00"	258.14	5.786
16-Aug	263.66/865.00"	258.24	5.814
17-Aug	263.66/865.00"	258.3	5.814
18-Aug	263.66/865.00"	258.36	17.519
19-Aug	263.66/865.00"	258.41	5.827
20-Aug	263.66/865.00"	258.93	5.858
21-Aug	263.66/865.00"	259.57	5.947
22-Aug	263.66/865.00"	260.06	6.023
23-Aug	263.66/865.00"	260.36	6.077
24-Aug	263.66/865.00"	260.51	6.092
25-Aug	263.66/865.00"	260.76	6.124
26-Aug	263.66/865.00"	260.86	6.147
27-Aug	263.66/865.00"	261.11	5.637
28-Aug	263.66/865.00"	261.47	
1-Sep	263.66/865.00	261.55	170.939
2-Sep	263.66/865.00	261.51	168.799
3-Sep	263.66/865.00	261.53	169.664
4-Sep	263.66/865.00	261.53	73.255
5-Sep	263.66/865.00	261.61	5.035
6-Sep	263.66/865.00	261.66	109.757
7-Sep	263.66/865.00	262.86	1554.85
8-Sep	263.66/865.00	262.86	1554.85
9-Sep	263.66/865.00	261.17	1637.505
10-Sep	263.66/865.00	261.17	538.593
11-Sep	263.66/865.00	260.97	227.702
12-Sep	263.66/865.00	260.83	268.92
13-Sep	263.66/865.00	260.56	255.565
14-Sep	263.66/865.00	260.68	45.408
15-Sep	263.66/865.00	260.77	4.951
16-Sep	263.66/865.00	260.77	4.951
17-Sep	263.66/865.00	261.06	4.969
18-Sep	263.66/865.00	261.06	4.969

TENUGHAT DAM**6.00 A.M.**

	CONSERVATION/ POND LEVEL LEVEL IN M./FT.	RESERVOIR LEVEL IN M.	OUTFLOW IN CUMEC.
19-Sep	263.66/865.00	856.73 F	4690 ac.ft.
20-Sep	263.66/865.00	261.15	752.34
21-Sep	263.66/865.00	N.A.	N.A.
22-Sep	263.66/865.00	260.97	85.429
23-Sep	263.66/865.00	260.86	84.403
24-Sep	263.66/865.00	260.86	84.403
25-Sep	263.66/865.00	260.86	84.403
26-Sep	263.66/865.00	260.86	84.403
27-Sep	263.66/865.00	260.86	84.403
28-Sep	263.66/865.00	260.86	84.403
29-Sep	263.66/865.00	260.86	84.403
30-Sep	263.66/865.00	261.12	4.979
1-Oct	263.66/865.00	261.17	4.979
2-Oct	263.66/865.00	261.12	86.118
3-Oct	263.66/865.00	261.12	86.591
4-Oct	263.66/865.00	261.12	86.438
5-Oct	263.66/865.00	261.24	21.946
6-Oct	263.66/865.00	261.7	71.252
7-Oct	263.66/865.00	261.49	42.14
8-Oct	263.66/865.00	261.4	41.68
9-Oct	263.66/865.00	261.26	115.027
10-Oct	263.66/865.00	261.24	32.206
11-Oct	263.66/865.00	261.26	5.007
12-Oct	263.66/865.00	261.27	5.007
13-Oct	263.66/865.00	261.29	5.007

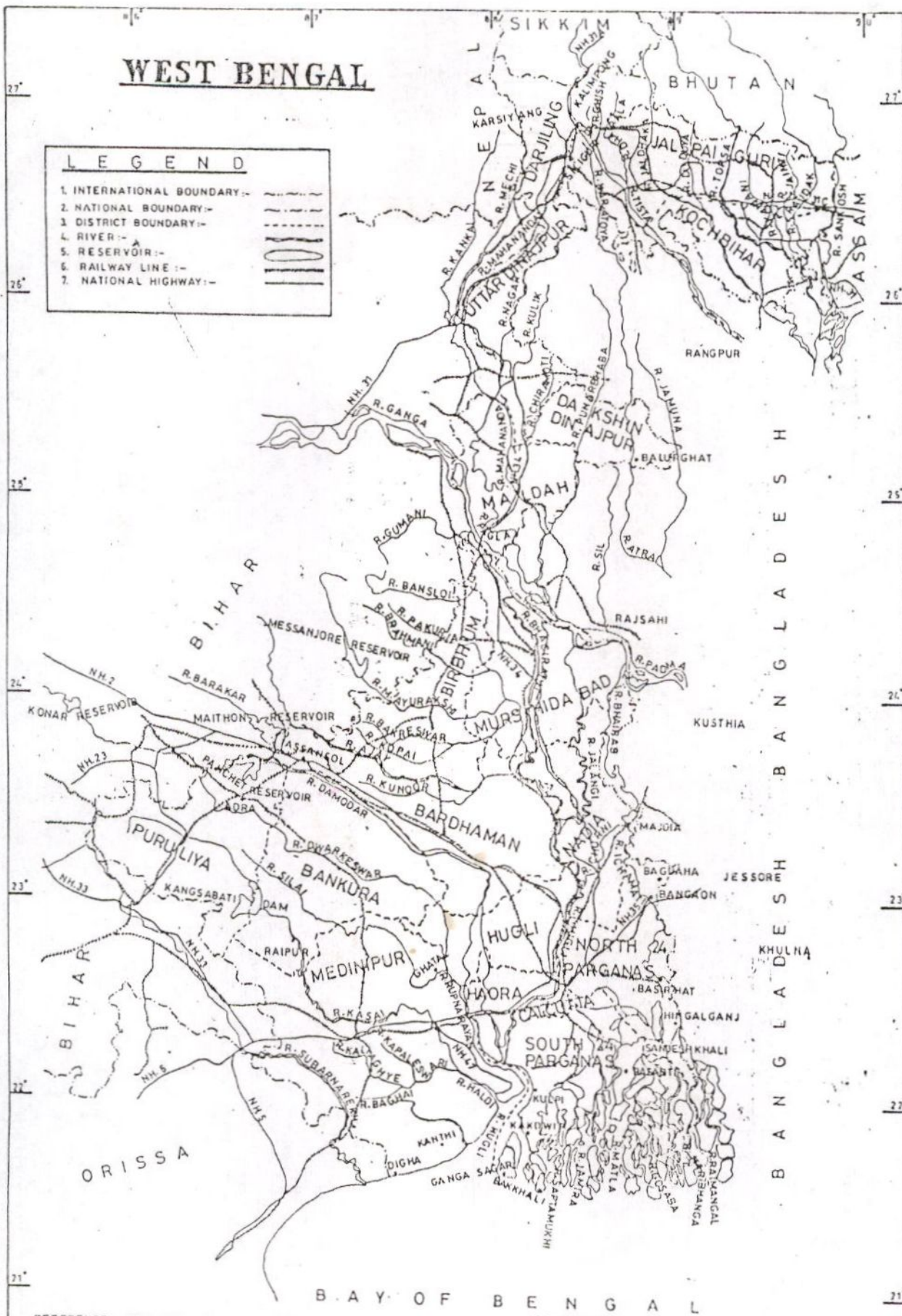
Statement of Districtwise Inundation area in the year 2009

District	Geographical Area (2001 Census)	Area inundated in Sq. km)	(% of ininundation	Remark
1	2	3	4	5
Darjeeling	3149	0	0.00	
Jalpaiguri	6227	1627.66	26.14	
Coochbehar	3387	250	7.38	
Uttar Dinajpur	3140.0	150	4.78	
Dakshin Dinajpur	2219	200	9.01	
Malda	3733	52	1.39	
Murshidabad	5324	100	1.88	
Birbhum	4545	0.6	0.01	
Burdwan	7024	0	0.00	
Bankura	6882	8	0.12	
Purulia	6259	0	0.00	
Nadia	3927	0	0.00	
Hooghly	3149	NA		15.44 KM damage
Howrah	1467	NA		81.314 KM damage
North 24-Parganas	4094	729.538	17.82	968.4 KM damage due to AILA
South 24- Parganas	9960	NA		
Purba Medinipur	4295	NA		
Paschim Medinipur	9786	NA		
Kolkata	185	0	0.00	
Total ::	88752	3117.798		

WEST BENGAL

LEGEND

1. INTERNATIONAL BOUNDARY :-
2. NATIONAL BOUNDARY :-
3. DISTRICT BOUNDARY :-
4. RIVER :-
5. RESERVOIR :-
6. RAILWAY LINE :-
7. NATIONAL HIGHWAY :-



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DRG NO - C.E/1/1/2001

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STATEMENT-1. DAMAGE OF THE EMBANKMENTS/ STRUCTURES IN DIFFERENT DISTRICTS 2009

Sl. No.	District	River	Damaged site/Police station/ Block	Nature and extent of Damages					Inundated area
				Breach	Severely/Partially Damaged	Damages to Protective Works.	Slip/Bank Erosion	Sluice	
1.	Jalpaiguri	Teesta	Segregating Embkt. Spur No. 2,7,9 & 10./ Kotoali/Sadar	-	Partially Damaged	Yes Partially	Partially	-	3.00 Sq K.M.
2.	Jalpaiguri	Teesta	J.T.P. Embkt. Including Embkt. & Spurs/Kotoali/Sadar	-	Partially Damaged	Yes Partially	Partially	-	150.00 Sq K.M.
3.	Jalpaiguri	Teesta & Karala	Tikiapara & Kadobari Embkt. /Kotoali/Sadar	-	Partially Damaged	Yes, Partially	Partially		50.00 Sq K.M
4.	Jalpaiguri	Teesta	Mondalghat-Bibiganj Embkt. /Kotoali/Sadar	-	Partially Damaged	Yes, Partially	Partially		200.00 Sq K.M
5.	Jalpaiguri	Jaldhaka	Giria, Dharaikuri and Sutanga Embkt. / Maynaguri/Maynaguri	-	Partially Damaged	Yes, Partially	Partially		300.00 Sq K.M
6.	Jalpaiguri	Teesta	Barnesh Domohani & Helapakri embkt. Maynaguri.	-	Partially Damaged	Yes, Partially	Partially	-	400.00 Sq. K.M.
7.	Jalpaiguri.	Leesh	Bagrakote embankment /Mal	150 Metre embkt. washed out	Severely damaged	Yes, Partially	Partially	-	300.00 Sq. K.M.
8.	Jalpaiguri	Teesta	Sidhabari Chengmari embkt./Kranti/Mal		Partially Damage	Yes, Partially	Partially	-	150.00 Sq. K.M.
9.	Jalpaiguri	Mal	Purba Teshimla /Kranti/Mal		Partially Damaged	Yes, Partially	Partially	-	25.00 Sq. K.M.
10.	Coochbehar	Teesta	Bibiganj Jharsingheswar & Kuchlibari embkt./Mekhliganj		Partially Damaged	Yes, Partially	Partially	-	250.00 Sq.K.M.

16.2.10.
(S.K.Bose)
Executive Engineer,
Jalpaiguri Irrigation Division.

16 Feb. 2010 16:18

FAX NO. : 03561230786

03561230786

ROM : EE J. I. Divn.

Received Time-16. Feb. 2010-16:13-No. 5731

STATEMENT - 2. District wise inundated area '2009'

Sl. No.	Name of District	Geographical area in (Sq. K.M.)	Area inundated in (Sq.K.M.)	Percentage	Remarks
1.	Jalpaiguri	6227.00 Sq. K.M.	1578.00 Sq. K.M.	25%	
2.	Cooch Behar	3,387.00 Sq. K.M.	250.00 Sq. K.M.	7%	

16.2.10
(S.K.Bose)
Executive Engineer,
Jalpaiguri Irrigation Division,
Club Road, Jalpaiguri.

03561230786

Statement of damages to embankment/structures during the flood - 2009
under Alipurduar Irrigation Division
Ref:- Memo.No.1634 dt. 30.12.09 of the S.E. & Member (Ex.), N.B.F.C.C., Jalpaiguri

V.V. Gupta

for A. P. Singh, B.S.
for 18/12/10.

Sl. No.	District	River	Damaged site/Police Station/Block	Breach	Nature & extent of damages		Slip/bank erosion	Sluice No.	Inundated area
1	2	3	4	5	6	7	8	9	10
1.	Jalpaiguri	Biana	Chenguari embkt.along the L/b Rv.Biana Ps.Banarhat, Block-Dhupguri & Nagrakata		Severely damaged at several vulnerable point	Damages slope matressing & round sausage		6 nos.	
2.	"	Diana	Kalabari embkt.along the L/b of Rv.Biana Ps.Nagrakata, Block Nagrakata		Raincuts occurs at several points of embkt.	Damages the nose of spur at O chainage			
3.	"	Diana	Dhumpa embkt.along the L/b of Rv.Biana Ps.Nagrakata, Dist.Jalpaiguri	Breach approx. 200m.		Damages slope matressing			
4.	"	Dhumur	Dhumur Ghorahaga Irrigation Canal Scheme Ps.Nagrakata Block Nagrakata		Severely damaged at crib wire & guide bundh	Raincuts occurs at canal embkt. at several point		3 nos.	
5.	"	Pagli	Pagli Bhutan embkt.along the L/b of Rv.Pagli Ps.Birpara, Block Maderihat	Breach approx. 150m.	Severely damaged approx. 350m.	Damages slope matressing & deflector			
6.	"	Tatasai	Sisabari Saruagan embkt.along the R/b of Rv.Tatasai in Ps.Falakata, Dist.Jal. Block-Falakata	Breach 60m.					
7.	"	Koli	Malsagan embkt.along the L/b of Rv.Koli in Ps.Falakata, Dist.Jal. Block - Falakata	150m.					
8.	"	Koli	Dalmony embkt.along the L/b of Rv.Koli in Ps.Falakata, Dist.Jal. Block-Falakata		Partially eroded 200m.				
9.	"	Dudua	Pramodnagar embkt.along the L/b of Rv.Dudua in Ps.Falakata, Dist.Jal. Block-Falakata	90m.					
10.	"	Dudua	Khaspara embkt.along the L/b of Rv.Dudua in Ps.Falakata, Dist.Jal. Block-Falakata	50m.					
11.	"	Birkudi	Birkuti embkt.along the R/b of Rv.Birkuti in Ps.Falakata, Dist.Jal. Block-Falakata	Partially eroded 150m.					
12.	"	Mujnai	Madhya Rangali Bazna embkt.along the R/b of Rv.Mujnai in ps.-Maderihat, Block Maderihat Birpara		Boulder apron and pitching damaged 300m.				
			Khatibari embkt.along the L/b of		Partially	Apron launched			

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	"	Jaldhaka	Khairbari embkt.along the L/b of Rv.Jaldhaka in Ps.Dhupguri, Dist.Jal. No		Partially damaged	Apron launched and pitching disturbed	
	"	Dudua	Balasundar embkt.along the R/b of Rv.Dudua in Ps.Dhupguri, Dist.Jal. No		Partially damaged	Apron launched & pitching disturbed	
15.	"	Dudua	Flood protection work along the R/b of Rv.Dudua at Gadong-II G.P, Ps.- Dhupguri, Dist.Jal. No		Severely damaged		Bank erosion.
16.	"	Gilandi	Protection against erosion at Paschim Salbari on R/b of Rv.Gilandi in Ps.Dhupguri, Dist.Jal. No		Severely damaged		Bank erosion
17.	"	Gilandi	Flood Protection Work along the R/b of Rv.Gilandi at Pundibari under Ps. Dhupguri, Dist.Jal. No		Severely damaged		Bank erosion
18.	"	Jaldhaka	L/b of Rv.Jaldhaka under mouza in Ps.Dhupguri, Dist.Jal.				About 1.50km. bank erosion occur
19.	"	Jaldhaka	L/b of Rv.Jaldhaka under Patkidaha mouza in Ps.Dhupguri, Dist.Jal.			Raincuts occur at different places at Bamberi Patkidaha embkt.	
20.	"	Jaldhaka	Spur No.-2 along the L/b of Rv.Jaldhaka under Patkidaha mouza in Ps.Dhupguri, Dist.Jal.			Nose of spur no.-2 damaged about 60.00m.	
21.	"	Gilandi	R/b of Rv.Gilandi under Uttar Kathulia mouza in Ps.Dhupguri				About 300.00m. bank erosion occurs
22.	"	Jaldhaka	Bamandanga embkt. Ps.Nagrakata Block-Nagrakata . Om. spur Nil		Sausage apron partially damaged and launched.Round sausage dragdown	Bamandanga embkt.	
23.	"	Jaldhaka	Marginal embkt.of Bamandanga embkt. Ps.& Block-Nagrakata Nil		Loose boulder apron severely damaged & R/sausage totally dragged down in between Ch.1630m. to 1850m.	Bamandanga marginal embkt.	Down portion of Kherkata protection work for the length of 400m.
24.	"	Diana	Kherkata embkt. of river protection works of Kherkata Basti. Ps. & Block-Nagrakata 15m.nose portion of Kherkata embkt.		Sausage apron & loose boulder pitching washed out at breach portion and partially damaged sausage work and loose boulder pitching in different place all over protection work.	Kherkata embkt. & protection work.	
25.	"	Ghatia	Bank erosion of L/s severely				
26.	"	Jayanti	Jayanti embkt. Ps.Samuktala Block- APD.-II		Apron 260m. (approx.) Pitching 210m.(approx.) Round sausage-18 nos.	260m. (severely)	
27.	"	Turturi	Turturi embkt.Ps.Samuktala Block - APD.-II		Apron-80m.(approx.) Pitching-65m.(approx.) Round sausage.7 nos.	80m.	
28.	"	Turturi	Lokenathpur embkt. Ps. Samuktala Block - RKB APD.-II		Apron-90m.(approx.) Pitching-70m.(approx.) Round sausage-3 nos.	90m.	U/s of Lokenathpur embkt. 65m.
29.	"	Turturi	Santal Colony		Crib weir- 70%	Side protection	

Sm.
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	2	3	4	5	6	7	8	9	10
1.	Jalpai-guri	Kaljani	Bull headed spurs in Chongpara. Block-Alipurduar-II, Ps. Alipurduar		Nose damaged 20m. Apron - 80m. severely pitching - 40m. R/sausage-18 nos. partially				
1.	..	Dharshi	Paschim Khalisamari R/b of Rv.Dharshi Block-APD-II Ps. Alipurduar		Apron - 90m. Pitching - 85m. severely				
2.	..	Chocko	Chocko Chongpara R/b of Rv.Chocko, Block-APD-II Ps. Alipurduar.		Apron-50m.(severely) Pitching-50m.(partially) Sausage-80 nos.				
3.	..	Kaljani	Dakshin Chongpara L/b of Rv.Kaljani, Block,APD-II Ps. Alipurduar		Apron-160m.(severely) Pitching-35m.(partially) Sausage-40 nos.(partially)				
4.	..	Gadadhar	Paschim Barochauki Roach-I R/b of Rv.Gadadhar Block,APD.-II,Ps.Alipurduar		Apron-50m. Pitching-45m. Sausage-10 nos.(partially)				
5.	..	Raidak-I	Titoranga R/b of Rv.Raidak-I Block-APD. II,Ps.Samuktala		Round sausage-8 nos.(severely) Partially-28 nos. damaged				
6.	..	Dharshi	Paschim Khalisamari embkt.L/b of Rv.Dharshi, Block APD.II Ps.Samuktala		Apron-40m.(partially) Pitching-18m.				
7.	..	Gadadhar	Salsalabari Bazar embkt. (Roach-I) R/b of Rv.Gadadhar Block-APD.II,Ps.Alipurduar		Apron-58m.(severely) Pitching-70m.				
8.	..	Dharshi	Uttar Chikliguri embkt. R/b of Rv.Dharshi, Block APD-II Ps. Samuktala		Apron-65m. Pitching-80m.(partially)				
9.	..	Gadadhar	Bindipara embkt. L/b of Rv.Gadadhar in Ps.Samuktala Dist.Jal.		Apron-120m. Pitching-110m. R/sausage-22 nos.				
10.	..	Nonai	Bholardabri embkt.(Roach-I&II) Ps.Alipurduar,Block APD.-II		Severely damaged-130m. Apron damaged-130m. Pitching-75m. Round sausage-7 nos.	Severely damaged-130m.			
11.	..	Chocko	Uttar Chongpara embkt. Ps.Alipurduar,Block-APD.II		Severely damaged-75m. Apron-75m. Pitching-40m. Round sausage-6 nos. Partially apron damaged - 20m.	Severely damaged - 75m. Partially damaged-20m.	U/s bank erosion-25m.		
12.	..	Kalkut & Chocko	Uttar Majherdabri embkt. Ps.Alipurduar,Block-APD.II		Severely damaged Apron-80m. Pitching-40m. Partially damaged Apron-35m. Pitching-20m. Round sausage-9 nos.	Severely damaged Length-60m. Partially damaged-35m.	D/s bank erosion-35m.		
13.	..	Chocko	Paddorpar embkt.		Severely damaged	Severely damaged	D/s bank		

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	Checko	Padderpar embkt. Ps. Alipurduar Block-APD.II	Severely damaged Apron-75m. Pitching-75m. Round sausage-5 nos.	Severely damaged length-75m.	D/s bank erosion-130m.	
	Checko	Dakshin Majhordabri embkt. Ps. Alipurduar, Block-APD.II	Partially damaged Apron-60m. Round sausage-5 nos.	Partially damaged-60m.		
5.	Pana	Radharani embkt. Ps. Kalchini Block-Kalchini	Total-3 nos. breach. Total length (55m.+120m.+ 65m.)=240m.	<u>Severely damaged</u> Length-360m. Apron-360m. Pitching-250m. Round sausages-25 nos. Tarif work-120m. <u>Partially damaged</u> Apron-200m. Round sausage-15 nos.	Breached length- 240m. Severely damaged-360m. Partially damaged-200m.	150 Acres
6.	Pana	Shikari embkt. Ps. Kalchini Block-Kalchini	Severely damaged-300m. Partially damaged-100m. Bedbars-6 nos. fully washed out. Round sausage-8 nos.	Severely damaged- 300m. Partially damaged- 100m.		
7.	Basra	Embkt. along the L/b of Rv. Basra at Hamiltonganj Ps. Kalchini, Block-Kalchini	Severely damaged-150m. apron-150m. pitching-100m. bedbars- 7 nos. (badly damaged) Partially damaged-250m. apron-150m. pitching-200m.	Severely damaged- 150m. Partially damaged- 250m.		
8.	Jayanti	Joypur embkt. Ps. Samuktala Block APD.-II	Severely damaged-150m. apron-150m. pitching - 75m.	Severely damaged-150m.		
9.	Checko	Bhasardabri embkt. Ps. -Samuktala Block-APD.II	Severely damaged-100m. apron-100m. pitching-50m. partially damaged-50m. apron-50m.			
10.	Jayanti	Protection work to Jayanti Bazar area Ps. Kalchini, Block-APD.II	Severely damaged-350m. partially damaged-300m. round sausage-18 nos. bed bar-3 nos.	Severely damaged- 350m. partially damaged 300m.	Bank erosion- 650m.	
11.	Gaburbasra	Gaburbasra embkt. Ps. Joygaon/Block-Kalchini	Severely & partially	275m. embkt. washed- out & partially dama- ge Earthen embkt. apron, pitching c.c. block, bed bars Length-2000m.	Embkt.	4200 Ha
12.	Torsha	Subhasini embkt. Kalchini	Severely & partially	300m. severely & 700m. partially Earthen embkt., apron, pitching & bed bar	Embkt.	80 ha
13.	Kaljani	Alipurduar T.P. embkt. Alipurduar Block-I	Partially	1400m. apron bedbars, round sausage, rain cuts etc.	Embkt.	6 nos.

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4.	Jalpai-guri	Kaljani	Chagra embkt. Alipurduar Block-APD.II	.	partially	700m.apron pitching,round sausage	Embkt.		
5.	"	Dima	Jitpur embkt.,Alipurduar Block-APD.I		Partially	300m.apron,pitching round sausage	Embkt.		
6.	"	Dudua	Balasundar embkt. Falakata,Block-Falakata		Partially	480m.apron, pitching, round sausage	embkt.		
7.	"	Kaljani	Patkapara embkt. Alipurduar,Block-APD.I		Partially	300m.apron pitching round sausage 1500m.	embkt.		
8.	"	Toreha	Bania embkt./Alipurduar Block-APD.I	Breach in the year- 2004	"	1500m.apron pitching round sausage	embkt.		
9.	"	Torsha	Bakshi Dalsing para embkt. Ps.Joygaon,Block-Kalchini	Breach in the year,2002	Severely & partially	1200m.embkt.washed- out & partially damage.Earthen embkt. apron,pitching c.c. block,bedbars Length-900m.	embkt.		130 ha.
10.	"	Kaljani	Dipchor bank protn.work Alipurduar/Block-APDI.	Maximum	Partially	600m.apron,pitching, round sausage	Bank erosion		
11.	"	Kaljani	Koverghat bank protn.work Alipurduar/Block-APD.I		"	550m.apron,pitching, round sausage,bedbar	"		
12.	"	Mujnai	Bank protn.,Borodoba/ Falakata/Block-FKT.		"	300m.apron,pitching, round sausage,bedbar	"		
13.	"	Kaljani	Nathuatory bank protn. work/Alipurduar Block-APD.I		"	800m.apron,pitching, round sausage.	"		
14.	"	Dodeya	Paschim Jitpur bank protn. work/Alipurduar,Block-APD.I		"	350m.apron pitching, round sausage	"		
15.	"	Sanjoy	Bank protn. Hatkhola Palashbari Palashbari/Falakata		"	1200m.apron,pitching round sausage	"		
16.	"	Garam	Bakshin Bairaguripbank protn. work/Alipurduar,Block-APD.I		"	250m.apron,pitching round sausage	"		
17.	"	Kaljani	Chapatoli/bank protn.work /Alipurduar,Block-APD.I		"	750m.apron,pitching round sausage	"		
18.	"	Bania- basra	Baniabasra bank protn./ Kalchini,Block-Kalchini		"	600m.apron,pitching round sausage	"		
19.	"	Garam	Benchukameri/bank protn. work/Alipurduar,Block-APD.I		"	300m.apron,pitching round sausage	"		
20.	"	Dima	Tatipara/bank protn.work Alipurduar,Block-APD.I		"	200m.apron,pitching round sausage	"		
21.	"	Kaljani	Arabinda Nagar Burning Chat bank protn. work/Alipurduar Block-APD.I		"	400m.apron,pitching round sausage	"		

4.2.10.

	Mujnai	Bank protn. Prothan Para Baganbari/Falakata Block-Falakata		470m. apron, pitching round sausage		90 Ha.
	Mujnai	Paschim Falakata behind S.S.B. Camp/Falakata, Block-FKT.		740m. apron, pitching round sausage		120 Ha.
74.	Choto Dima	Paschim Jitpur/bank protn. work Alipurduar/Block-APD.I		250m. apron, pitching round sausage		
75.	Mujnai	North Nabanagar/Deogaon Falakata		900m. apron, pitching round sausage		95 Ha.
76.	Sanjoy	Bank protn. Health Centre Palashbari/Palashbari Falakata		900m. apron, pitching round sausage		
77.	Dolong	Chuakhola Dakshin Parangerper Falakata, Block-FKT.		460m. apron, pitching round sausage		40 Ha.
78.	Dolong	Jogindarpur/Moiradanga Falakata, Block-FKT.		460m. apron, pitching round sausage		60 Ha.
79.	Sil-Torsha	Chel embkt./Alipurduar Block-APD.I		2 nos. spur apron, pitching round sausage	Embkt.	
80.	Sil-Torsha	U/s of Siltorsha bridge/ Palashbari, Falakata		290m. apron pitching round sausage	Bank erosion	80 Ha.
81.	Channel of Dolong	Arobindo Para, Nallah Mukti Para/Falakata, Block-FKT.		(Falakata Town) 530m. apron, pitching		10 Ha.
82.	Raidak-II	Chottodaldali embkt. mouza- Chottodaldali, Ps. & Block- Kumargram along the R/b of Rv. Raidak-II	Partially damaged	Boulder sausage apron fully washed away upto a length 700m. & round sausage damaged - 18 nos.		
83.	Raidak-II	Lalchandpur boulder sausage embkt. mouza Lalchandpur, Ps. & Block-Kumargram along the R/b of Rv. Raidak-II	Severely damaged	Slope mattress washed away upto a length 600m. and sausage embkt. damaged at U/s side upto a length of 200m. and round sausage washed away 14 nos. fully.		
84.	Raidak-II	Khorshali embkt. along the R/b of Rv. Raidak-II in Ps. & Block - Kumargram	Partially damaged	Sausage apron fully washed away upto a length of 180m. and round sausage damaged-9 nos.		
85.	Raidak-I	Madhya Parokata embkt. along the L/b of Rv. Raidak-I mouza- Madhya Parokata in Ps.- Samuktala, Block-APD.II	Severely damaged	Loose boulder apron fully washed away & round sausage fully washed away upto length of 400m.		
86.	Raidak-I	Paschim Chikliguri embkt. along the L/b of Rv. Raidak-I, mouza Paschim Chikliguri in Ps. Samuktala, Block-APD.II	Partially damaged	Loose boulder apron & round sausage washed away.		
87.	Raidak-I	Dakshin Parokata spur (4 nos.) along the L/b of Rv. Raidak-I mouza Dakshin Parokata in Ps. Samuktala, Block-APD.II		Loose boulder apron at noses fully washed away in 4 nos. spurs & round sausage fully washed away 4 nos.		
88.	Raidak-I	Weir at offtake point of Nararthali-Kamakhya-guri Irrigation Scheme, mouza Uttar Nararthali in Ps. & Block- Kumargram		Rubble masonry weir at offtake point of N.K.I. severely damaged.		

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89.	Jalpai-guri	N.K.I	Lining work damages at different chainage of N.K.I in Ps. & Block-Kumargram		Partially damaged	C.C.lining damaged at different chainage.			
90.	"	Raidak-II	Anti erosion work along the R/b of Rv.Raidak-II from Kanjibazar to Chouhaspara in Ps. & Block-Kumargram (At Ch.420m. to Ch.640m. & Ch. 850m. to 1000m.)		"	Round sausage 20 nos. damaged & apron partially damaged			
91.	"	Turturi	Santal Colony closure embkt. along L/b of Rv.Turturi at mouza Dangi in Ps.Samuktala Block-APD.II		120m.severely damaged at downstream end.	Apron,triangular and slope pitching totally washed away.			
92.	"	Dhoulajhora	Turturi Khanda boulder sausage barrier along R/b of Rv.Dhoulajhora in Ps. & Block-Kumargram		Severely damaged	150m. trapezoidal sausage severely damaged ii)At middle portion 275m. 1.50m.squares sausage severely damaged.(iii)At D/s portion 100m. / 1.50m. square sausage badly damaged.			
93.	"	Dharahi	Samuktala embkt.along the R/b of Rv.Dharahi in Ps.Samuktala Block-APD.II		90m. severely damaged at D/s portion	Apron,triangular and 5 nos. round sausage totally washed away			
94.	"	Dharahi	Chepani embkt.along the L/b of Rv.Dharahi in mouza Chepani Ps.Samuktala,Block-APD.II		250m. embkt. severely damaged at D/s portion	Apron,triangular and slope pitching totally damaged			
95.	"	Dharahi	Patetola embkt.along the R/b of Rv.Dharahi in mouza Patetola,Ps.Samuktala,Block-APD.II		100m.embkt. severely damaged at D/s portion	Apron,triangular and slope pitching totally damaged 4 nos.round sausage dragged down into river.			
96.	"	Raidak-II	Jaydevpur embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram (and portion)		Severely damaged	315m.embkt.(armoured)damaged by 95% sausage apron & slope pitching completely washed away 15 nos. 3-Tier round sausage completely dragged down.Earth work of river side slope & embkt. event completely,washed away earthwork of country side slope damaged by 95%.	Bank erosion		
97.	"	Raidak-II	Jaydevpur embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram (Concave Zone) (In between Ch.452m. to Ch.875m.)		Severely damaged for a length of 423m.	Sausage apron & slope pitching completely washed away 20 nos. 3-Tier round sausage completely dragged down into river.Earth work of river side slope completely washed away 50% embkt. event severely damaged.			
98.	"	Raidak-II	Jaydevpur embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram(Middle portion)		Severely damaged for a length of 423m.	Sausage apron & slope pitching completely washed away. 15 nos. 3-Tier round sausage dragged			

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		Raidak-II	Jaydevpur embkt. along the L/b of Rv. Raidak-II in Ps. & Block-Kumargram (Middle portion)	Severely damaged for a length of 126m.	Sausage apron & slope pitching completely washed away. 15 nos. 3-Tier round sausage dragged down into river. Earth work of river side slope completely washed away. 60% embkt. crest & damaged.	
99.	..	Raidak-II	Spur No.-1 at Jaydevpur embkt. along the L/b of Rv. Raidak-II in Ps. & Block-Kumargram	Severely damaged	60m. of spur no.1 washed away completely from its end portion along with nose portion. Sausage apron and sausage slope pitching in both sides completely washed away 12 nos. 3-Tier round sausage at U/s portion & nose portion completely dragged down into river. Earth work completely washed away.	..
100.	..	Raidak-II	Boulguri embkt. along the L/b of Rv. Raidak-II in Ps. & Block-Kumargram (D/s portion)	..	220m. embkt. 95% damaged. Sausage apron and slope pitching completely washed away. 15 nos. 3-Tier round sausage completely dragged down into river. Earth work of river side slope & embkt. crest completely washed away. Country side slope 95% washed away.	..
101.	..	Raidak-II	Boulguri embkt. along the L/b of Rv. Raidak-II in Ps. & Block-Kumargram (Middle portion)	Severely damaged for a length of 250m.	Sausage apron & slope pitching completely washed away. 15 nos. 3-Tier round sausage dragged down into river. Earth work of river side slope completely washed away. Crest of embkt. 50% damaged.	..
102.	..	Raidak-II	Boulguri embkt. along the L/b of Rv. Raidak-II in Ps. & Block-Kumargram (U/s portion)	Severely damaged for a length of 290m.	Sausage apron completely washed away. Boulder slope pitching 80% damaged. 20 nos. 3-Tier round sausage completely dragged down into river. 80% earth work in river side slope damaged.	..
103.	..	Raidak-II	Hemaguri Bull-headed spur no.-6 on the L/b of Rv. Raidak-II in Ps. & Block-Kumargram.	Severely damaged	45m. length of Bull-headed spur no.-6 completely washed away. Boulder sausage apron & boulder slope pitching on both side completely washed away. 10 nos. 3-Tier round sausage at U/s side and nose portion completely dragged down into river. Earth work for 45m. completely washed away.	..
104.	..	Raidak-II	Hemaguri Bull-headed spur no.-3 on the L/b of Rv. Raidak-II in Ps. & Block-Kumargram.	..	15m. length of Bull-headed spur at its nose portion severely damaged. Sausage apron and boulder slope pitching on both side washed away. 10 nos. 3-Tier round sausage at U/s side & nose portion completely dragged down into river. Earth work completely washed away for 15m. length at end portion (nose portion)	..
105.	..	Raidak-II	Preventing erosion at at Meehpara along the L/b of Rv. Raidak-II in Ps. & Block-Kumargram	i) .. ii) Partially damaged	10 nos. Bed bar severely damaged by 95% 18 nos. Bed bar partially damaged by 60% . Earth work of river bank in Slip & between 2 nos. Bed bar are eroded. Erosion severely. Earth work & sausage pitching required.	..

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	2	3	4	5	6	7	8	9
106.	Jalpai-guri	Raidak	Preventing erosion at Khuruli-jhora along the L/b of Rv.-Raidak in Ps. & Block-Kumargram (Sector - C)		i) Severely damaged ii) Partially damaged.	15 nos. Bedbar severely damaged by 90% . Each length = 10m. 29 nos. Bedbar partially damaged by 60%. Each length = 10m.		
107.	,,	Raidak	Preventing erosion at Nepali Basti along the L/b of Rv.Raidak in Ps. & Block-Kumargram(Sector-D)		i) Severely damaged ii) Partially damaged	27 nos. bedbar of each length 10m. severely damaged by 90% 18 nos. bedbar of each length 10m. partially damaged by 70%		
108.	,,	Raidak-II	Purba Chakchoka embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram(R/s U/s Nose portion)		Partially damaged	110m. embkt. damaged. Sausage apron washed away completely. Toe of boulder slope pitching damaged & pitching damaged 50% 10 nos. 3-Tier round sausage dragged down into river. Earth work damaged at river side slope, country side slope and crest of embkt.	Bank erosion	
109.	,,	Raidak-II	Kuttimari 'T'-Spur on the L/b of Rv.Raidak-II in Ps. & Block-Kumargram.		,,	Nose of T-Spur damaged for a length of 25m. Sausage apron damaged 50% boulder slope pitching damaged. 8 nos. 3-tier round sausage dragged down into river.		
110.	,,	Raidak-II	Rachanagar bank protective work along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram (D/s portion along with its nose)		,,	180m. bank protective work damaged at D/s portion along with its nose portion. Sausage apron washed away at D/s nose portion boulder slope pitching 60% damaged at D/s portion and nose portion completely washed away. 15 nos. 3-tier round sausage dragged down into river.		
111.	,,	Raidak-II	Kalakucha embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram(D/s portion along with its nose portion)		,,	370m. embkt. damaged. Sausage apron washed away completely. Boulder slope pitching 70% damaged. 20 nos. 3-tier round sausage dragged down into river. Earth work damaged in R/s slope, C/slope and crest of embkt.		
112.	,,	Raidak-II	Barodaldali embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram(E/s portion along with nose).		,,	315m. embkt.damaged.Sausage apron washed away completely. Boulder slope pitching 75% damaged. 6 nos. 3-tier round sausage dragged down into river. Earth work damaged at R/s slope, C/s slope and crest of embkt.		
113.	,,	Raidak-II	Changmari embkt.along the L/b of Rv.Raidak-II in Ps. & Block-Kumargram		,,	250m. embkt. damaged. Sausage apron washed away completely. Boulder slope pitching 60% damaged. 15 nos. 3-tier round sausage 80% damaged.Earth work damaged at R/s slope, C/s slope and crest of embkt.		
114.	,,	Chhoto Sankosh	Sahebpara embkt.along the R/b of Rv.Chhoto Sankosh in Ps. & Block-Kumargram		Severely damaged for a length of 90m. at D/s portion of embkt.	Loose boulder apron of depth 0.90m. has been completely washed away pitching affected. 6 nos.round sausage deflector washed away and 5 no. badly damaged.		
115.	,,	Chhoto Sankosh	Sahebpara Bangdoba embkt.along the R/b of Rv.Chhoto Sankosh in Ps. & Block-Kumargram		Severely damaged for a length of 80m.at U/s portion of embkt.	Loose boulder apron of depth 0.90m. has been severely damaged 5 nos. round sausage deflector washed		

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				portion of embkt. away and 4 nos. badly damaged.	
		Sankosh	Purba Salbari embkt.along the R/b of Rv.Sankosh in Ps. & Block-Kumargram	Severely damaged for a length of 120m. at D/s of Forest Camp Office	Sausage apron having size 10m.x1.80m.x 0.60m. has been completely damaged and washed away. Pitching also affected. 10 nos. round sausage washed away and 6 nos. badly damaged.
117.		Sankosh	Sankosh embkt.at Sankosh T.G along the R/b of Rv.Sankosh in Ps. & Block-Kumargram	Severely damaged for a length of 90m.at U/s portion and 70m. at D/s portion	River side boulder sausage Toe wall severely damaged and washed away at several places. Pitching also badly damaged 10 nos. round sausage deflector washed away.
118.		Sankosh	Jaraguri embkt.along the R/b of Rv.Sankosh in Ps. & Block-Kumargram	Severely damaged for a length of 60m.at D/s portion (Nose portion)	Sausage apron severely damaged and washed away at several places. 6 nos. round sausage washed away and 4 nos. badly damaged.
119.		Sankosh	Takulla embkt.along the R/b of Rv.Sankosh in Ps. & Block - Kumargram (Spur no. 1 & 2)	Severely damaged for a length of 60m. at nose portion of both Spur no.- 1 & 2	Sausage apron completely washed away pitching badly damaged. Numbers of round sausage deflector damaged and washed away.
120.		Raidak-II	Chottodaldali embkt.mouza-Chottodaldali in Ps. & Block-Kumargram,along the R/b of Rv.Raidak-II	Partially damaged	Boulder sausage apron fully washed away upto a length of 700m. and round sausage damaged 18 nos.
121.		Raidak-II	Lalchandpur boulder sausage embkt.mouza Lalchandpur,Ps. & Block-Kumargram,along the R/b of Rv.Raidak-II	Severely damaged	Slope mattress washed away upto a length 600m. & sausage embkt. damaged at U/s side upto a length of 200m. & round sausage washed away 14 nos. fully.
122.		Raidak-II	Kharahali embkt.along the R/b of Rv.Raidak-II in Ps. & Block-Kumargram	Partially damaged	Sausage apron fully washed away upto a length of 180m. & round sausage damaged 9 nos.
123.		Raidak-I	Madhya Parokata embkt.along the L/b of Rv.Raidak-I,mouza-Madhya Parokata in Ps.Samuktala Block-APD.II	Severely damaged	Loose boulder apron fully washed away & round sausage fully washed away upto length of 400m.
124.		Raidak-I	Paschim Chikliguri embkt.along the L/b of Rv.Raidak-I, mouza-Paschim Chikliguri in Ps. Samuktala,Block-APD.II	Partially damaged	Loose boulder apron & round sausage washed away
125.		Raidak-I	Dakshin Parokata spur(4 nos.)along the L/b of Rv.Raidak-I,mouza Dakshin Parokata in Ps.Samuktala,Block-APD.II		Loose boulder apron at noses fully washed away in 4 nos. spur & round sausage fully washed away 4 nos.
126		RaidakI	Wair at offtake point of Narathali Kamakhyaguri Irrigation Scheme,mouza-Uttar Nararthali in Ps. & Block-Kumargram	Severely damaged	Rubble masonry weir at off-take point of N.K.I. severely damaged.

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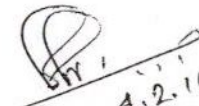
Sl.No.	District	River	Damage site/Police Station/Block	Nature and extent of damaged					Inundated Area
				Breach	Severely/Partially damaged.	Damages to protective works	Slip/Bank Erosion	Sluice No.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
127.	Jalpaiguri	N.K.I.	Lining work damages at different chainage of N.K.I. in P.S. & Block, Kumargram.	-	Partially damaged.	C.C. tending damaged at different chainage. (Damage Cost. Rs. 15 lakh)			
128.	Jalpaiguri	Raidak-II	Anti erosion work along the right bank of River Raidak-II from Janjibazar to mChouhaspara in P.S. & Block Kumargram. (At Ch. 420m to Ch. 640m and Ch. 850m to 1000m)	-	Partially damaged	Round sausage 20 Nos. damaged and apron partially damaged. (Damage Cost. Rs. 12 lakh)			
129	Jalpaiguri	Turturi	Santal colony closure embankment along left bank of river Turturi at Mouza Dangi in P.S. Samuktala, Block, Alipurduar-II	-	120M embkt.severely damaged at downstream end.	Apron, triangular and slope pitching totally washed away. (Damaged Cost. Rs. 30 lakh)			
130	Jalpaiguri	Dhowlajhora	Turturi Khanda Boulder sausage Barrier along the Right Bank of river Dhowlajhora in P.S. & Block Kumargram	-	Severely damaged	i) 150M trepezoial sausage severely damaged. ii) At middle portion 275M 1.50M square sausage severely damaged. iii) At downstream end portion 100M 1.50M square sausage badly damaged. (Damage Cost. Rs. 25 lakh.)			
131	Jalpaiguri	Dharshi	Samuktala Embankment along the right bank of river Dharshi in P.S. Samuktala, Block Alipurduar-II.	-	90 M severely damaged at Downstream portion.	Apron, Triangular and 6 Nos. Round sausage totally washed away. (Damage Cost. Rs. 15 lakh)			
132	Jalpaiguri	Dharshi	Chepani embankment along the left bank of river Dharshi in mouza Chapani, P.S. Samuktala, Block. Alipurduar-II.		250M embankment severely damaged at Downstream portion	Apron, triangular and slope pitching totally damaged. (Damaged Cost. Rs. 25 lakh)			
133	Jalpaiguri	Dharshi	Potatola embankment along the right bank of river Dharshi in Mouza Potatola, P.S. Samuktala, Block-Alipurduar-II		100M.embkt.severely damaged at D/Stream portion	Apron, Triangular and slope pitching totally damaged. 4 Nos. Round sausage dragged down into river.			

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Sl.N o.	District	River	Damage site/Police Station/Block	Nature and extent of damaged					Inundated Area
				Breach	Severely/ Partially damaged.	Damages to protective works	Slip/Bank Erosion	Sluice No.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
134	Jalpaiguri	Raidak-II	Joydevpur Embankment along the left bank of river Raidak-II in P.S. & Block-Kumargram(End portion)		Severely damaged.	315M embank.(armoured) damaged by 95% sausage apron & slope pitching completely washed away. 15 Nos. 3-Tier round sausage completely dragged down. Earthwork of river siade slope and embankment erestly completely washed away. Earthen work of country side slope damaged by 95% (Damage Cost. Rs. 60 lakj)	Bank erosion		
135	Jalpaiguri	RAidak-II	Joydevpur Embankment along the left bank of river Raidak-II in P.S.& Block,Kumargram,(Concave Zone))(In between Ch. 452M to Ch. 875M)		Severely damaged for a length of 423 M.	Sausage apron and slope pitching completely washed away 20Nos. 3 Tier Round sausage completely dragged down into River. Earthen work of river said slope completely washed away. 50% embkt. Erest severely damaged. (Damage Cost. Rs,. 65 lakh approx)	Bank erosion		
136	Jalpaiguri	Raidak-II	Joydevpur embankment along the left bank of river Raidak-II in P.S. & Block Kumargram (Middle portion)		Severely damaged for a length of 326 m.	Sausage apron and slope pitching completely washed away. 16 nos. 3 tier Round sausage dragged down into river .Earth work of river side slope completely washed away. 60% embank damaged.	Bank erosion.		

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Sl.N o.	District	River	Damage site/Police Station/Block	Nature and extent of damaged					Inundated Area
				Breach	Severely/ Partially damaged.	Damages to protective works	Slip/Bank Erosion	Sluice No.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
137	Jalpaiguri	Raidak-II	Spur No.I at Joydevpur Embankment along the left bank of river Raidak-II in P.S. & Block Kumargram		Severely damaged.	60nm Spur No.I washed away completely from its end portion alongwith nose portion. Sausage apron and sausage slope pitching in both sides completely washed away 123 Nos. 3 Tier Round sausage at upstream portion and nose portion completely dragged down into river. Earth work completely washed away.	Erosion		
138	Jalpaiguri	Raidak-II	Boulguri Embankment along the left bank of river Raidak-II in P.S. & Block Kumargram (Down stream portion)		Severely damaged.	220M embankment 95% damaged. Sausage apron and slope pitching completely washed away. 15 Nos. 3 Tier Round sausage completely dragged down into river. Earthwork of river side slope and embankment crest completely washed away. Country side slope 95% washed away.	Bank erosion		
139	Jalpaiguri	RAidak-II	Boulguri Embankment along the left bank of river Raidak-II in P.S. & Block Kumargram(Middle portion)		Severely damaged for a length of 250M.	Sausage apron and slope pitching completely washed away. 15 nos. 3 tier round sausage dragged down into river. Earthwork of river side slope completely washed away. Crest of embkt. 50% damaged.			


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140	Jalpaiguri	Raidak-II	Hemaguri Bull headed Spur No.6 on the left bank of river Raidak-II in P.S. & Block Kumargram.		Severely damaged.	45 M length of Bull headed Spur No.6 completely washed away. Boulder sausage apron and boulder slope pitching on both side completely washed away. 10 Nos. 3-Tier Round sausage at upstream side and nose portion completely dragged down into river. Earthwork for 45 m completely washed away.			
141	Jalpaiguri	Raidak-II	Hemaguri Bull headed spur No.3 on the left bank of river Raidak-II in P.S. & Block Kumargram.		Severely damaged.	15m length of Bull headed Spur at its nose portion severely damaged. Sausage apron and Boulder slope pitching on both side washed away. 10 Nos. 3 tier Round sausage at upstream side and nose portion completely dragged down into river. Earthwork completely washed away for 15 m length at end portion (Nose portion)			
142	Jalpaiguri	Raidak-II	Preventing erosion at mechpara along the left bank of river Raidak-II in P.S. & Block Kumargram.		i) Severely damaged ii) Partially damaged.	10 Nos. Bed Bar severely damaged by 95% 18 Nos Bed bar partially damaged by 60%. Earth work of river bank in between 2 Nos. Bed Bar are eroded severely. Earth Work and Sausage pitching required.			
143	Jalpaiguri	Raidak	Preventing erosion at Khuruljhora along the left bank of river Raidak in P.S. & Block Kumargram (Sector-c)		i) Severely damaged. ii) Partially damaged.	15 Nos. Bed Bar severely damaged by 90% Each length-10m. 29 Nos. Bed bar partially damaged by 60% Each length-10 m.			
144	Jalpaiguri	Raidak	Preventing erosion at Nepali Basti along the left bank of river Raidak in P.S. & Block Kumargram. (Sector-D)		i) Severely Damaged. ii) Partially damaged.	27 Nos. Bed Bar of each length 10m severely damaged by 90% 18 Nos. Bed bar of each length 10M partially damaged by 70%.			
145	Jalpaiguri	Raidak	Purba Chakchaka Embankment along the left bank of river Raidak-II in P.S. & Blok Kumargram. (Upstream Nose portion)		Partially damaged	110, embankment damaged. Sausage apron washed away completely. Toe of boulder slope pitching damaged and pitching damaged 50% 10 Nos. 3-Tier Round sausage dragged down into river. Earth work damaged at River side slope, country side slope and crest of embankment.	Bank erosion		

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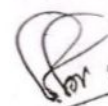
SLN o.	District	River	Damage site/Police Station/Block	Nature and extent of damaged					Inundated Area
				Bre ach	Severely/ Partially damaged.	Damages to protective works	Slip/Bank Erosion	Sluice No.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
146	Jalpaiguri	Raidak-II	Kuttima;ri 'T' Spur on the left bank of river Raidak-II in P.S. and Block Kumargram.	-	Partially damaged.	Nose of T-Spur damaged for a length of 25 m. sausage apron damaged. 50% boulder slope pitching damaged. 8Nos. 3Tier Round sausage dragged down in to river.	Bank erosion		
147	Jalpaiguri	Raidak-II	Radhanagar Bank protective work along the left bank of rivr Raidak-II in P.S. and Block Kumargram. (Downstream portion along with its nose)	-	Partially damaged.	180m Bank protective work damaged at downstream portion alongwith its nose portion. Sausage apron washed away at Downstream nose portion Boulder slope pitching 60% damaged at downstream portion and nose portion completely washed away. 15 nos. 3-Tier Round sausage dragged down into river.			
148	Jalpaiguri	Raidak-II	Kalakucha mbanbkment along the left bank of river Raidak-II in P.S. & Block-Kumargram(Downstream portion along with its nose portion)	-	Partially damaged.	370M. embankment damaged. Sausage apron washed away completely. Boulder slope pitching 70% damaged. 2Nos. 3-Tier Round sausage dragged down into river. Earth work damaged in River side slope, country slope and erest of embankment.	Bank erosion.		
149	Jalpaiguri	Raidak-II	Barodaldali Embankment along the left bank of river Raidak-II in P.S.& Block-Kumargram(Upstream portion alongwith nose.)	-	Partially damaged.	315M. embankment damaged. Sausage apron washed away completely. Boulder slope pitching 75% damaged. 16 Nos. 3-Tier Round sausage dragged down into river. Earth work damaged at River side slope, Countryside slopeand crest of embankment.	Bank erosion		

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150	Jalpaiguri	Raidak-II	Chengmari embankment along the left Bank of river Raidak-II in P.S. & Block Kumargram.	-	Partially damaged.	250M embankment damaged. Sausage apron washed away completely. Boulder slope pitching 60% damaged. 15 Nos. 3-Tier round sausage 80% damaged. Earth work damaged at river side, country side slope and crest of embankment.	Bank erosion.		
151	Jalpaiguri	Chhoto sankosh	Sahebpara embankment along the right bank of river Chhoto Sankosh in P.S. & Block-Kumargram.	-	Severely damaged for a length of 90M at downstream portion of embankment.	Loose boulder apron of depth 0.90m has been completely washed away pitching affected. 6 Nos. round sausage deflector washed away and 5 nos. badly damaged.			
152	Jalpaiguri	Sankosh	Purba Salbari embankment along the right bank of river Sankosh in P.S. & Block Kumargram.	-	Severely damaged for a length of 120M at downstream of Forest camp office.	Sausage apron having size 10m x 1.80m x 0.60m has been completely damaged and washed away. Pitching also affected. 10Nos. Round sausage washed away and 6 Nos. badly damaged.			
153	Jalpaiguri	Sankosh	Sankosh embankment at Sankosh T.G along the right bank of river Sankosh in P.S. & Block Kumargram.	-	Severely damaged for a length of 90m at upstream portion and 70m at downstream portion.	Riverside boulder sausage toe wall severely damaged and washed away at several places. Pitching also badly damaged. 10 Nos. Round sausage deflector washed away.			
154	Jalpaiguri	Sankosh	Jaraguri embankment along the right bank of river Sankosh in P.S. & Block, Kumargram.	-	Severely damaged for a length of 60M at downstream portion(Nose portion).	Sausage apron severely damaged and washed away at several places. 6 Nos round sausage washed away and 4 Nos. badly damaged.			
155	Jalpaiguri	Sankosh	Takulla embankment along the right bank of river Sankosh in P.S. & Block Kumargram (Spur No.1&2)	-	Severely damaged for a length of 60M at Nose portion of both spur No.1&2.	Sausage apron completely washed away. Pitching badly damaged. Numbers of Round sausage deflectors damaged and washed away			


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156	Jalpaiguri	Gholani	Upstream Earthen Marginal embankment of left Afflux Bundh of Gholani Irrigation Scheme along the left bank of river Gholani in P.S. & Block Kumargram.	Severely damaged for alength of 90M		80% eroded		
157	Jalpaiguri	Jorai	Jorai Irrigation scheme on River Jorai in P.S.& Block- Kumargram.	Severely damaged C.C.Crib weir and canal lining.	C.C.Crib weir severely damaged for a length of 20m on mid portion of weir. Both side canal lining badly damaged at several places in between ch. 500m to Ch. 1000m.			

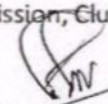

 Executive Engineer
 Alipurduar Irrigation Division
 Alipurduar
 04/02/10


Memo. No. 157 (4)

Dated 04-02-10

Copy forwarded to the:-

- 1) Chief Engineer and Chairman, North Bengal Flood Control Commission, Club Road, Jalpaiguri.
- 2) Director, Advance and Planning Circle, Jalasampad Bhawan, Salt Lake City, Kolkata-91.
- ✓ 3) Nodal Officer, Flood Cell and Superintending Engineer & P.A. to Chief Engineer-I, Jalasampad Bhawan, Salt Lake City, Kolkata.91 vide with reference to his memo. No. 2674/1(16)-CI dated 20-11-2009.
- 4) Superintending Engineer & Member(Execution), North Bengal Flood Control Commission, Club Road, Jalpaiguri.


 Executive Engineer
 Alipurduar Irrigation Division
 Alipurduar
 04/02/10


 04/02/10

Statement of Damages of Embankments/Structures in Different Districts of West Bengal during the Flood-2009.

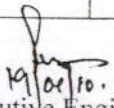
SL. No	District	River	Damaged Site/ Police Station/ Block	Nature & extent of damages					Inundated Area
				Breach	Severely/ partially damaged	Damages to Protective works	Slip /Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
1.	Cooch Behar	R/B OF RIVER DHARALA	Barokaimari P.S. Mathabhanga Block – Mathabhnaga-I	—	—	100 M (in 1 Place)			
2.	Cooch Behar	R/B OF RIVER SUTUNGA	Nagar Mathabhanga, Paschim Khaterbari, Gadalerkuthi P.S. - Mathabhanga Block- Mathabhanga-I	—	—	650 M (in 4 Places)			
3.	Cooch Behar	L/B OF RIVER JALDHAKA	Daribas P.S. Ghoksadanga Block- Mathabhanga-II	—	—	~ 70 M (in 1 Place)			
4.	Cooch Behar	R/B OF RIVER DUDUA	Bilaturghat, Singijani, Uttar Daribas P.S.- Ghoksadanga Block- Mathabhanga-II	—	—	300 M (in 3 Places)			
5.	Cooch Behar	R/B OF RIVER MANSAL	Bhangamore, Uttar Daibhangi P.S. Mathabhanga Block- Mathabhanga-I	—	—	280 M (in 3 Places)			
6.	Cooch Behar	R/B OF RIVER MANSAL	Kajlikura P.S. Sitai Block- Sitai.	—	—	450 M (in 2 Places)			

Statement of Damages of Embankments/Structures in Different Districts of West Bengal during the Flood-2009.

SL. No	District	River	Damaged Site/ Police Station/ Block	Nature & extent of damages					Inundated Area
				Breach	Severely/ partially damaged	Damages to Protective works	Slip /Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
7.	Cooch Behar	R/B OF RIVER MANSAL	Sarbeswar Joyduar P.S.- Sitalkuchi Block- Sitalkuchi	—	—		100 M (in 1 Place)		
8.	Cooch Behar	L/B OF RIVER MANSAL	Bairati Jagatjully P.S.- Kotwali Block-Cooch Behar-II	—	—		250 M (in 1 Place)		
9.	Cooch Behar	R/B OF RIVER MANSAL	Falakata Sildanga P.S. Mathabhanga. Block-Mathabhanga-II	—	—		50 M (in 1 Place)		
10.	Cooch Behar	L/B OF RIVER TORSAL	Salmara, Hanskhowa, Rajarhat Ghierhari, Harinchowra, P.S.- Kotwali Block- Cooch Behar-II	—	—		930 M (in 7 Places)		
11.	Cooch Behar	L/B OF RIVER TORSAL	Guriahati, Dawaguri P.S. Kotwali Block - Cooch Behar-I	—	—		450M (in 5 Places)		
12.	Cooch Behar	R/B OF RIVER TORSAL	Ichhamari P.S.- Kotwali Block- Cooch Behar-II	—	—		360M (in 2 Places)		

Statement of Damages of Embankments/Structures in Different Districts of West Bengal during the Flood-2009.

SL. No	District	River	Damaged Site/ Police Station/ Block	Nature & extent of damages					Inundated Area
				Breach	Severely/ partially damaged	Damages to Protective works	Slip /Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
13	Cooch Behar	R/B OF RIVER TORSA	Ghughumari, Panisala. P.S. Kotwali , Block:- Cooch Behar- I	—	—	270M (in 3 Places)			
14	Cooch Behar	R/B OF RIVER KALJANI	Uttar Ambari, Kholta, Dakshin Ambari P.S. Kotwali , Block:- Cooch Behar- II	—	—	325M (in 3 Places)			
15	Cooch Behar	R/B OF RIVER KALJANI	Chhatowa, Arampur, Chowkushi, Souldhukri, P.S. Tufanganj, Block;- Tufanganj- I	—	—	305M (in 4 Places)			
16	Cooch Behar	L/B OF RIVER KALJANI	Boxirkuthi, Jhaljhali, Jaigir Chilakhana, Santoshpur, Balabhut, Bhuchungamari, P.S. Tufanganj, Block;- Tufanganj- I	—	—	1100M (in 7 Places)			
17	Cooch Behar	R/B OF RIVER RAIDAK-I	Tufanganj, P.S. Tufanganj, Block- Tufanganj- I	—	—	100M (in 1 Place)			
18	Cooch Behar	R/B OF RIVER RAIDAK-II	Ghonapara P.S. Tufanganj, Block-Tufanganj- II	—	—	200M (in 1 Place)			
19	Cooch Behar	R/B OF RIVER RAIDAK II	Kathalbari, Takuamari, Ghonapara, Saldanga, P.S. Boxirhat Block- Tufanganj -II	—	—	810M (in 4 Places)			
20	Cooch Behar	L/B OF RIVER GADADHAR	Kathalgurichhara, Dhalpal, Andaran Fulbari,, P.S. Tufanganj, Block- Tufanganj- I	—	—	570M (in 3 Places)			
21	Cooch Behar	L/B OF RIVER GIRIDHARI	Deokhata , P.S. Sitai , Block- Sitai	—	—	150M (in 1 Place)			


 Executive Engineer
 Cooch Behar Irrigation Division
 Cooch Behar

**LIST OF DAMAGES TO EMBANKMENTS / STRUCTURES UNDER
SILIGURI IRRIGATION DIVISION, DURING THE MONSOON OF 2009**

Sl. No.	Name of the Embankment / Canal bank	Exact location of damage (i.e. G.P./ Block/ P.S)	Length of damage (in m / km)	Nature of damage	Approx. Cost of Damage (in lakh rupees) (Cost derived on the basis of unit cost of existing structure)
1	2	3	4	5	6
1	Restoration of Sukna Embankment and remodelling of Nagradoba Embankment along the right bank of River Mahananda in P.S. Matigara, Dist. Darjeeling.	G.P. : Sukna, Champasari Block : Matigara P.S. : Sukna, Matigara	Earthen armoured Sukna embkt. breached for a length of 45 m. along with breach of D/S earthen embkt. for 25 m. Boulder sausage Nagradoba embkt. completely washed away for a length of 75 m. Almost entire length of the sausage embkt. got severely damaged.	Breach and severe damage of embkts.	490.00
2	Restoration of washed out portion of earthen armoured embankment including strengthening thereof on the right bank of River Balason at Dhimaljote in P.S. Matigara, Dist. Darjeeling.	G.P. - Atharakhai Block - Matigara P.S. - Matigara	Earthen armoured embkt. initially breached at two spots measuring 150 m. Total length of severely damaged embkt. comes to 770.00 m at present including 870.00 m of damaged / washed out Apron.	Breach of embkt. and washing out of apron including severe damages.	129.00
3	Protection on the left bank of river Mechi at upper Mechi area for preventing avulsion of the river into river Bataria in P.S. Naxalbari, Dist. Darjeeling.	G.P. : Naxalbari Block : Naxalbari P.S. : Naxalbari	Boulder sausage protn. work washed away at two locations : 400 m at U/S and 100 m at D/S.	Washing out of protection work.	48.24
4	Strengthening of U/S portion of Porajhar Embankment and D/S portion of Medical Right Bank of River Balason at Bidhanpally and Kalamjote area in P.S. Matigara, Dist. Darjeeling.	G.P. - Matigara-II Block - Matigara P.S. - Matigara	Old apron of U/S portion of Porajhar Embkt. got severely damaged and length of 240.00 m. of Medical College Embkt. got severely damaged and mostly washed away for a length of 760.00 m.	Washed out / severely damaged of length of 1000 m.	110.00
5	Taipu river Irrigation Scheme in P.S. Phansidewa, Dist. Darjeeling.	G.P. - Block - Phansidewa P.S. - Phansidewa	(a) Boulder sausage apron associated with crib weir - 120 m (b) Guide wall 15 m (c) Canal bank in between Ch. 0.00 & Ch. 100.00	Severely damaged including breaches of R/S canal bank at 5 locations	7.00
6	Protection on the L/R of Rv. Panchanai at Ujan Busty area in Ward No. 46 of S.M.C. in P.S. Pradhan Nagar, Dist. Darjeeling.	Block : Matigara P.S. : Pradhan Nagar	Round sausage stude and protection wall Length - 50.00 m	Severely damaged and partially washed away	2.00
7	Protection on the R/B of Rv. Panchanai at Pramaod Nagar U/S of Rly. Bridge under Ward No. 47 of S.M.C. in P.S. Matigara, Dist. Darjeeling.	Block : Matigara P.S. : Matigara	15.00 m wall and apron 15.00 m wall and apron	Completely washed away Severely damaged and partially washed away	2.00

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Page-2

LIST OF DAMAGES TO EMBANKMENTS / STRUCTURES UNDER
SILIGURI IRRIGATION DIVISION, DURING THE MONSOON OF 2009

Sl. No.	Name of the Embankment / Canal bank	Exact location of damage (i.e. G.P./ Block/ P.S)	Length of damage (in m / km)	Nature of damage	Approx. Cost of Damage (in lakh rupees) (Cost derived on the basis of unit cost of existing structure)
1	2	3	4	5	6
8	Bidhannagar embankment beyond the confluence point of river Buri Balason & river Mahananda on its right bank in P.S. Phansidewa Dist. Darjeeling.	G.P. - Bidhannagar-I Block - Phansidewa P.S. - Phansidewa	Round studs : 16 nos. x 8 m = 128 m Apron 70 m	Mostly washed away Badly damaged	2.00
9	Protection on the left bank of river Chenga at Bukdhala area in P.S. Phansidewa, Dist. Darjeeling.	G.P. - Bidhannagar-II Block - Phansidewa P.S. - Phansidewa	Apron : 200 m Pitching : 100 m	Severely damaged - do -	7.00
10	Protection on the left bank of river Mechi D/S of Dhulabari Road Bridge at Panitanki in P.S. Kharibari, Dist. Darjeeling.	G.P. - Raniganj Panisali Block - Kharibari P.S. - Kharibari	(1) 5 nos. x 5 m = 25 m bed bar (2) 30 m boulder sausage wall	Severely damaged - do -	6.00
11	Protection on the right bank of river Manjha from erosion of Kuchijote in P.S. Kharibari, Dist. Darjeeling.	G.P. - Ghoshpukur Block - Phansidewa P.S. - Phansidewa	100.00 m boulder sausage apron	Severely damaged	5.00
12	Protection on the left bank of river Manjha from erosion at Rupaijote in P.S. Kharibari, Dist. Darjeeling.	G.P. - Ghoshpukur Block - Phansidewa P.S. - Phansidewa	150.00 boulder sausage apron	Severely damaged	4.00
13	Protection on the right bank of river Chenga from erosion at Jagirjote in P.S. Kharibari, Dist. Darjeeling.	G.P. - Kharibari Block - Kharibari P.S. - Kharibari	(1) 4 nos. x 6 m = 24 m bed bar (2) 35 m apron	Severely damaged - do -	7.00
14	Bhulka - Ramdhan embkt. on the left bank of river Mechi in P.S. Kharibari, Dist. Darjeeling (in between Ch. 0.00 m and 9310.00 m).	G.P. - Raniganj Panisali Block - Kharibari P.S. - Kharibari	—	A good no. of rain cuts occurred in the earthen armored embkt. associated with formation of the crest at locations	2.00
15	Protection on the left bank of river Buri Balason at Deepnagar	G.P. - Matigara Block - Matigara P.S. - Matigara	100.00 m (apron)	4 nos. bed bar badly damaged and partly washed away	8.00
16	Protection on the R/S of Rv. Buri Balason from erosion at Saptigurihat area in P.S. Phansidewa Dist. Darjeeling. Ch. 150.00 m to 250.00 m.	G.P. - Bidhannagar II Block - Phansidewa P.S. - Phansidewa	100.00 m (apron)	Severely damaged	3.90
17	Protection on the L/S of Rv. Buri Balason from erosion at Heragach area in P.S. Phansidewa, Dist. Darjeeling.	G.P. - Phansidewa Block - Phansidewa P.S. - Phansidewa	50.00 m boulder wall and apron	Severely damaged	2.25

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LIST OF DAMAGES TO EMBANKMENTS / STRUCTURES UNDER
SILIGURI IRRIGATION DIVISION, DURING THE MONSOON OF 2009

Sl. No.	Name of the Embankment / Canal bank	Exact location of damage (i.e. G.P./ Block/ P.S)	Length of damage (in m / km)	Nature of damage	Approx. Cost of Damage (in lakh rupees) (Cost derived on the basis of unit cost of existing structure)
1	2	3	4	5	6
18	Protection on the L/B of Rv. Chenga at Kachumani village area in P.S. Phansidewa, Dist. Darjeeling.	G.P. - Ghoshpukur Block - Phansidewa P.S. - Phansidewa	70.00 m Boulder sausage apron	Severely damaged	3.00
19	Protection on the R/B of River Swarnamati at Mahishumari in P.S. Kharibari, Dist. Darjeeling.	G.P. - Binnaguri Block - Kharibari P.S. - Kharibari	Apron : 50.00 m Wall : 50.00 with base	Severely damaged	5.00
20	Protection on the both bank of Rv. Mahishumari at Befai Basti area (near Circuit House) in P.S. Matigara/Pradhannagar, Dist. Darjeeling.	G.P. - Champasari Block - Matigara P.S. - Pradhan Nagar	200.00 m wall and apron	Severely damaged	4.00
21	Protection on the R/B of Rv. Mahananda at Samarnagar Udbastu Colony in P.S. Pradhannaga, Dist. Darjeeling.	G.P. - Champasari Block - Matigara P.S. - Matigara	100.00 m wall	Severely damaged	6.00
22	Preventing avulsion of Rv. Mechi into Rv. Swarnamati at Rhuika in P.S. Kharibari, Dist. Darjeeling.	G.P. : Ranigani Panisali Block, Kharibari P.S. : Bhaktinagar	3 nos. bed bar @ 4.00 m each, - 60.00 m round sausage study	Severely damaged	2.00
23	Protection on the L/B of Rv. Mahananda at Bhanunagar (under S.M.C.) in P.S. Bhaktinagar, Dist. Jalpaiguri.			Completely washed away	2.00
24	Patiram embkt. at Kulshega area on the left bank of river Balason in P.S. Matigara, Dist. Darjeeling.	G.P. : Block : Matigara P.S. : Matigara		Apron mostly washed away threatening the embkt.	2.00
25	Protection on the L/B of Rv. Mahananda at Betgara in P.S. Bhaktinagar, Dist. Jalpaiguri.	Block : Rajganj P.S. : Bhaktinagar	Damaged length 1500 m.	Severe bank erosion cropped up along with washed away of 5 nos. bed bar.	30.00
26	Protection on the L/B of Rv. Rakti at Goaljote area in P.S. Matigara, Dist. Darjeeling.	Block : Matigara P.S. : Matigara	bed bars	Severely damaged and partially washed away	3.00
27	Chiharujote embkt. on the L/B of Rv. Mahananda under Ward No. 42 of S.M.C. P.S. Bhaktinagar, Dist. Jalpaiguri.	P.S. : Bhaktinagar	Pitching and apron 135.00 m	Severely damaged and partially washed away	7.00
28	Strengthening of Chiharujote embkt. on the L/B of Rv. Mahananda in P.S. Bhaktinagar, Dist. Jalpaiguri. (Ch. from 0.00 to 200.00 m)	G.P. : Bhaktinagar Block : Rajganj P.S. : Bhaktinagar	Damaged length of pitching and apron - 200 m.	Washed away of 200 m apron. Collapse of boulder pitching work for a length of 170 m.	25.00

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**LIST OF DAMAGES TO EMBANKMENTS / STRUCTURES UNDER
SILIGURI IRRIGATION DIVISION, DURING THE MONSOON OF 2009**

Sl No.	Name of the Embankment / Structure	Exact location of damage (G.P., Block / P.S.)	Length of damage (in m / feet)	Nature of damage	Approx. Cost (in lakh) (Cost derived on the basis of unit cost of existing structure)
1	2	3	4	5	6
29	Protection on the right bank of river Buri Balason from erosion at Bidhannagar embankment near R.L.I. Pump House at Jhingibari area in P.S. Phansidewa, Dist. Darjeeling.	G.P. : Block : Bidhannagar P.S. : Phansidewa	50 m apron	Washed out / severely damage	4.00
30	Protection on the right bank of river Bataria at Bengajote area in P.S. Naxalbari, Dist. Darjeeling.	G.P. : Block : Naxalbari P.S. : Naxalbari	70 m sausage wall and apron	Washed out / severely damage	4.00
31	Protection on the both of river Bataria at Naxalbari Market area in P.S. Naxalbari, Dist. Darjeeling.	G.P. : Block : Naxalbari P.S. : Naxalbari	200 m sausage wall and apron	Washed out / severely damage	7.00
32	Protection on the right bank of river Manjha at Sabdullah Basty area in P.S. Naxalbari, Dist. Darjeeling.	G.P. : Block : Naxalbari P.S. : Naxalbari	50 m sausage wall and apron	Washed out / severely damage	3.00
33	Protection on the right bank of river Chenga at Mangarah Basty area in P.S. Phansidewa, Dist. Darjeeling.	G.P. : Block : P.S. : Phansidewa	70 m apron	Washed out / severely damage	3.00
34	Protection on the left bank of river Chenga at Dhamalchatt area in P.S. Phansidewa, Dist. Darjeeling.	G.P. : Block : P.S. : Phansidewa	60 m apron	Washed out / severely damage	2.30
35	Protection on the right bank of river Mahananda from erosion at Dhakpara in P.S. Phansidewa, Dist. Darjeeling.	G.P. : Block : P.S. : Phansidewa	150 m apron	Washed out / severely damage	2.00
36	Protection on the left bank of river Buri Balason from erosion at Tetnagach in P.S. Phansidewa, Dist. Darjeeling.	G.P. : Block : P.S. : Phansidewa	100 m wall and apron	Washed out / severely damage	3.80
TOTAL : Rs. 982.49 lakh					

Sd/-

Executive Engineer,
Siliguri Irrigation Division,
Siliguri.

Statement of damages to Embankments/Structures in different districts of West Bengal during the Flood-2009

Sl. No.	Districts	River	Damaged Site/Police Station/Block	Nature & extent of damages					Inundated Area
				Breach	Severely/Partially damaged	Damages to protective works	Slip/Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
1.	Uttar Dinajpur	Kulik	RTP, RTP Extension Embkt./Raiganj, P.S. Raiganj		Embkt. is severely damaged in the form of Ghogha, raincure, slips etc.	100.00m damaged in the form of tecsausage and failure.	200.00m at Binahar	6 nos.	- NIL
		Nagar				660.00m at Panchbhaya Sariabad, at Panch-Vitihar in the form of damaged tecsausage and pilching.	2600.00m at Panchbhaya scal-tore, 4 tecsausage and pilching damage.	1 No.	NIL
		Mahananda	Pajol flood control embankment/Itahar, L/B of Mahananda at Titiya, Chitalghata flood protection Embkt.in P.S.Chopra.	3 nos. spurs at Chitalghata in P.S.C hopra.	Embkt.is severely damaged in the form of Ghoghs, raincite slips etc.	1200.00m at Dandolia, Bariol, Churamony and 100m tec wall subsided at Islanpur and 500m. bank erosion at Sonapurghat Rd. Bridge (NH-31) and Kumartola in P.S. Chopra.	3500.00m at 4 Nos. Gopalpur Bachkapur, Churanan and at Biptop Nagar Colony near Sonapurghat Rd. Bridge (NH-31)		NIL
		Sui	Burimondal Embkt./Rajnagar Embkt./Itahar in P.S. Itahar.		Embkt.in severely damaged in the form of ghoghs, raincuts slips etc.	500.00m at Kapsin Gulandhar.	1200.00m at Srinantapur, Gulandhar.	4 Nos.	NIL

1	2	3	4	5	6	7	8	9	10
Uttar Dinajpur	Chiramati	Madhupur Embkt. P.S. Kaliaganj.	-	Embkt. is severely damaged in the form of Ghoghs, raincuts slips etc.	-	-	-	1 No.	NIL
	Tangon	-	-	-	100m at Narayanpur	1800m. Chakchdil Krishnapur	1 No.	NIL	
	Dauk	-	5 nos. spurs in between Choprahut & Nanital Colony	-	200m bank erosion in P.S. Chopra.	300m bank etosion at Sonapur Ghat (NH-31)	-	NIL	
	Burabar	Nanda Laru Waist weir in P.S. Islampur.	Eaistweir	Embankment severly damaged in the form of Ghoghs rain slips	85 Mtr. Nanda Lorukhion embkt. end wing wall & returning wall are major damaged	Canal embkt. at Kadanghachi minor Irrigatiøn sluice are eroded severly	-	NIL	

Sl. No.	Districts	River	Damaged Site / Police Station Block	Nature & extent of damages					Inundated Area
				Breach	Severely partially damaged	Damages to protective works	Slip Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
1.	Dakshin Dinajpur	Punarbhaba	L/B At Goyal Khari. P.S. & Block Gangarampur.	-	Partially damaged	Protective work	-	1	
2.	-Do-	- Do-	L/BAt Indra narayanpur Govt. colony embkt. P.S. Gangarampur & Block	-	Partially damaged. Apron & pitching	-Do-	-	-	
3.	-Do-	- Do-	R/BAt Ram para chanchra embkt. P.S. Gangarampur & Block	-	Partially damaged	-Do-	Slip	-	
4.	-Do	-Do-	R/BAt Mallickpur embkt. at places. P.S. Gangarampur & Block	-	Partially damaged	-	Slip	-	
5.	-Do-	-Do-	L/BAt Ward No. 14 of Gangarampur Municipality P.S. Gangarampur	-	Severely	-	Bank Erosion	-	

Statement of damages to Embankments/Structures in different districts of West Bengal during the Flood - 2009.

Sl. No.	Districts	River	Damaged Site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely partially damaged	Damages to protective works	Slip Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
6.	Dakshin Dinajpur	Punarbhaba	L/BAt Nayabazar. P.S. & Block Gangarampur.	-	Partially damaged. Apron & pitching	Protective work	-	-	
7.	-Do-	Tangon	L/BAt Basatipara at places. P.S. Kushmandi & Block	-	Partially damaged. Apron & pitching	-Do-	-	-	
8.	-Do-	- Do-	R/BAt Konrapara at places. P.S. Kushmandi & Block	-	Partially damaged	-Do-	-	-	
9.	-Do	-Do-	R/BAt Dhakdhol embkt. at places. P.S. Kushmandi & Block	-	Partially damaged	-Do-	Slip	-	
10.	-Do-	-Do-	L/BAt Sherpur embkt at places. P.S. Kushmandi & Block	-	Partially damaged & eroded	-Do-	-	2	

Statement of damages to Embankments/Structures in different districts of West Bengal during the Flood – 2009.

Sl. No.	Districts	River	Damaged Site / Police Station / Block	Nature & extent of damages				Inundated Area	
				Breach	Severely/ partially damaged	Damages to protective works	Slip Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
11.	Dakshin Dinajpur	Tangon	R/BAt Churaman embkt. at places. P.S. Kushmandi & Block	-	Partially damaged & eroded	Protective work	Bank erosion	1	
12.	-Do-	- Do-	R/BAt Beal Borail embkt. at places. P.S. Banshihari & Block	-	Partially damaged	-Do-	Slip	1	
13.	-Do-	- Do-	R/BAt Bagduar P.S. Banshihari & Block	-	Severely eroded	-Do-	Bank erosion	-	
14.	-Do	-Do-	R/BAt Shihal P.S. Banshihari & Block	-	Severely eroded	-Do-	Bank erosion	-	

Statement of damages to Embankments/Structures in different districts of West Bengal during the Flood – 2009.

Sl. No.	Districts	River	Damaged Site Police Station Block	Nature & extent of damages					Inundated Area
				Breach	Severely partially damaged	Damages to protective works	Slip Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
15.	Dakshin Dinajpur	ATRAI	L/B at Beltara. P.S. & Block Kumarganj	-	Partially damaged	Protective work	Slip	-	
16.	-Do-	- Do-	At.R/B of Chakkasi(Library Embkt. P.S. & Block Balurghat	-	Partially damaged.	-Do-	Slip	-	
17.	-Do-	- Do-	At.R/B of Chakkasi (Pry. School). P.S. & Block Balurghat	-	Partially damaged	-Do-	Slip	-	
18.	-Do	-Do-	At.L/B of B.T.P. Embkt. (Dakait Kali)P.S. & Block Balurghat	-	Partially damaged	-	Slip	-	
19.	-Do-	-Do-	At.R/B of Chakkasi near H/O Bhupen Sarkar. P.S. & Block Balurghat	-	Partially damaged	-	Slip	-	

Statement of damages to Embankments/Structures in different districts of West Bengal during the Flood - 2005.

Sl. No.	Districts	River	Damaged Site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely/ partially damaged	Damages to protective works	Slip / Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
20.	Dakshin Dinajpur	ATRAI	At.R/B of Chakvrigu P.S. & Block Balurghat	-	Partially damaged.	Protective work	-	-	
21.	-Do-	- Do-	At.R/B of Chakvrigu near H/O Shibaji Das. P.S. & Block Balurghat	-	Partially damaged.	-Do-	-	-	
22.	-Do-	- Do-	At.R/B of Danga Khari Embktnear Police Line . P.S. & Block Balurghat	-	Partially damaged	-Do-	Slip	-	
23.	-Do-	-Do-	At.R/B of Danga Khari Embkt.near Mohan Jha P.S. & Block Balurghat ock Balurghat	-	Partially damaged	-Do-	Slip	-	
24.	-Do-	-Do-	R/B At Kalikapur . P.S. & Block Balurghat	-	Partially damaged & eroded		Bank erosion		

**STATE OF DAMAGES TO EMBANKMENT/STRUCTURES IN DIFFERENT DISTRICTS OF WEST BENGAL DURING THE
FLOOD-2009 .**

Sl. No.	Districts	River	Damaged Site/Police Station/Block	Nature & exten of damges					Inundated Area
				Breach	Severely/ Partially damaged	Damages to protective works	Slip/Bank erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
1	M	Fulahar	Bhaluka Bazar P.S.- Harishchandrapur Block- Harishchandrapur-II	Embankment 300M.	Severely embankment damaged 500m.	800M.	Bank erosion 2.00 K.m.	Nil	52.0 Sq. K.M.
2.	A	Fulahar	Teljana P.S.- Harishchandrapur Block- Harishchandrapur-II	Nil	Severely damaged Teljana Sluice	Nil	Nil	1 No.	Nil
3.		Fulahar	Debipur P.S.- Ratua, Block- Ratua-I	Nil	Nil	Nil	Bank erosion 2.00 K.m.	Nil	Nil
4.	L	Fulahar	In between Sankaritola to Kalitala ghat, P.S. & Block Manikchak, Dist. Malda.	Nil	Partially	210 Metre	Slip	-	Does not arise
5.	D	Ganga	Janjalitola, Mahanandatola P.S.- Ratua, Block- Ratua-I	Nil	Nil	Nil	Bank erosion 5.00 K.m.	Nil	Nil
6		Ganga	Domhat P.S. Manikchak, Dist. Malda.	Nil	Severely	1600 Mtr. (Approx.)	Bank erosion	Nil	Does not arise
7	A	Mahananda	Ashapur & Galimpur P.S.- Chanchal, Block- Chanchal-I	Nil	Nil	Nil	Bank erosion 1.50 K.m.	Nil	Nil
8.		Mahananda	Raninagar & Rajaram Chak P.S.- Ratua, Block- Ratua-II	Nil	Nil	Nil	Bank erosion 1.00 K.m.	Nil	Nil
9		Mahananda	Rajaram Chak P.S.-Gazole, Block- Gazole	Nil	Nil	Nil	Bank erosion 1.00 K.m.	Nil	Nil

Sl. No.	Districts	River	Damaged Site/Police Station/Block	Nature & exten of damges					Inundated Area
				Breach	Severely/ Partially damaged	Damages to protective works	Slip/Bank erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
10	M A	Punarb haba	Near Bartali, P.S. Bamongola, Dist. Malda	Nil	Partially	120 Mtr	Bank erosion	Nil	Does not arise
11	L D	Punarb haba	Kupadaha, P.S. Bamongola, Dist. Malda	Nil	Partially	100 Mtr.	Bank erosion	Nil	Does not arise
12	A	Punarb haba	Barshipara, P.S. Bamongola, Dist. Malda	Nil	Partially	90 Mtr.	Bank erosion	Nil	Does not arise

STATEMENT OF DAMAGES TO EMBANKMENTS / STRUCTURES IN DIFFERENT DISTRICTS OF WEST BENGAL DURING THE FLOOD -2009

Sl. No.	Districts	River	Damaged Site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely / Partially Damaged	Damages to protective works	Slip / bank Erosion	Sluice (No)	
1	2	3	4	5	6	7	8	9	10
1	Malda	Ganga	Domhat P.S.- Manikchak, Dist.-Malda	-	Severely	1600Mtr. (Approx.)	Bank Erosion	-	Does not arise.
		Fulahar	In between Shankaritola to Kalitola Ghat, P.S. & Block-Manikchak, Dist.-Malda	-	Partially	90+30+40+20+30 =210 Mtr.	Slip	-	Does not arise.
		Punarbhaba	Near Battali P.S.-Bamongola, Dist.-Malda	-	Partially	120Mtr.	Bank Erosion	-	Does not arise.
		Punarbhaba	Kupadaha P.S.-Bamongola, Dist.-Malda	-	Partially	100Mtr.	Bank Erosion	-	Does not arise.
		Punarbhaba	Barshipara P.S.-Bamongola, Dist.-Malda	-	Partially	90Mtr.	Bank Erosion	-	Does not arise.

Statement of damages to Embankments/Structures in different districts of West Bengal during the Flood - 2009

Sl. No.	Districts	River	Damaged Site/Police Station/Block	Nature & extent of damages					Inundated Area
				Breach	Severely/ Partially damaged	Damages to protective works	Slip/ Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
1.	Birbhum	Brahmani	Left embankment of River Brahmani, P.S. Nalhati, Block-Nalhati-II P.S. G.P. - Sitalgram	150 Mtrs 9.235 Km to 9.385 Km		40 Mtrs.			75 Ac of Agricultural Land
2.	Birbhum	Brahmani	Left embankment of River Brahmani P.S. Nalhati Block Nalhati-II P.S. G.P. Sitalgram	-	Partially damaged from K.M. 6.40 to 6.46 K.M.	-	Slip 6 Mtrs.	-	
3.	Birbhum	Brahmani	- do -	-	Partially damaged from K.M.8.534 to K.M.8.609	-	Slip 75 Mtrs	-	
4.	Birbhum	Brahmani	- do -	(I) Breach 150.00 M.T. 9.235 K.M. to 9.385 K.M.	40 M.T.	-	-	-	70 AC of Agricultural Land
5.	Birbhum	Brahmani	- do -	-	A) Partially Damaged from K.M.6.40 to 6.46 K.M.	-	Slip 60 Mtrs.	-	
6.	Birbhum	Brahmani	- do -	-	B) Partially Damaged from K.M.8.534 to 8.609 K.M.	-	Slip 70 Mtrs.	-	

STATEMENT 1. DAMAGES TO EMBANKMENTS / STRUCTURES IN DIFFERENT DISTRICTS 2009

Sl. No.	Districts	River	Damaged Site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely / Partially damaged	Damages to protective works	Slip / Bank Erosion	Sluice (No.)	
1	2	3	4	5	6	7	8	9	10
A. Ganga Anti Erosion Division - I									
1.	Murshidabad	Ganga	Bank erosion occurred during the month of Sept., 2009 having a length of about 300M. on the right bank of river Ganga at Village Ramrampur & Mouza-Kuli under P.S. & Block Farakka	NIL	Partially damaged	300 M.	Bank Erosion	NIL	No areas had been inundated during flood of 2009 under this jurisdiction of G.A.E. Divn. No.-I
2	Murshidabad	Ganga	Bank erosion occurred during the month of Sept. & Oct., 2009 having a length of about 900M. on the right bank of river Ganga at Mouza-Arjunpur under P.S. & Block Farakka	NIL	Partially damaged	900 M.	Bank Erosion	NIL	
3	Murshidabad	Ganga	Bank erosion occurred during the month of Sept. & Oct., 2009 having a length of about 525M. on the right bank of river Ganga near D/S of Bed Bar No. N2 Laxminagar under P.S. & Block Samserganj	NIL	Partially damaged	525 M.	Bank Erosion	NIL	
4	Murshidabad	Ganga	Severe bank erosion occurred during the month of July to Oct., 2009 at Mouza- Chachanda having a length of about 2000M. on the right bank of river Ganga under P.S. & Block Samserganj	NIL	Severe damaged	2000 M.	Bank Erosion	NIL	
5	Murshidabad	Ganga	Bank erosion occurred during the month of July to Oct., 2009 at Mouza- Ichalipara having a length of about 500M. on the right bank of river Ganga under Block -Suti-II, P.S. Suti	NIL	Partially damaged	500 M.	Bank Erosion	NIL	
6	Murshidabad	Ganga	Bank erosion occurred during the month of July to Oct., 2009 at Giria	NIL	Partially damaged	300 M.	Bank Erosion	NIL	

(Contd.....P/2)

	3	4	5	6	7	8		
		having a length of about 300M. on the right bank of river Ganga under Block - Sui - I, P.S. Suti						
	Murshidabad	Bhagirathi	Severe bank erosion on the right bank of river Bhagirathi at Mouza- Illiaspur under Laxmijola G.P. in P.S. & Block Raghunathganj under G.A.E. Divn. No.-I. Dist. Murshidabad. E.W.L. 700M.	NIL	Severe damaged	700 M.	Bank Erosion	NIL
8	Murshidabad	Bhagirathi	Severe bank erosion on the right bank of river Bhagirathi at Mouza-Mohammadpur under Laxmijola G.P. in P.S. & Block Raghunathganj under G.A.E. Divn. No.-I. Dist. Murshidabad. E.W.L. 2500M.	NIL	Severe damaged	2500 M.	Bank Erosion	NIL
9	Murshidabad	Bhagirathi	Severe bank erosion on the right bank of river Bhagirathi from Bathing Ghat at Vill. & Mouza-Raghunathpur in G.P.-Laxmijola in P.S. & Block Raghunathganj under G.A.E. Divn. No.-I. Dist. Murshidabad. E.W.L. 2800M.	NIL	Severe damaged	2800 M.	Bank Erosion	NIL
10	Murshidabad	Bhagirathi	Severe bank erosion on the right bank of river Bhagirathi at Mouza-Birendranagar and Frejamagar in P.S. Raghunathganj under G.A.E. Divn. No.-I. Dist. Murshidabad. E.W.L. 1000M.	NIL	Severe damaged	1000 M.	Bank Erosion	NIL
11	Murshidabad	Bhagirathi	Palliative Work Emergent palliative measures to prevent bed erosion & bank failure on left bank of river Bhagirathi near Bathing Ghat towards Vill. Gobindapur & Bhawanipur in P.S. Raghunathganj under G.A.E. Divn. No.-I, Dist. Murshidabad E.W.L. 100 M.	NIL	Partially damaged	100 M.	Bank Erosion	NIL

(Contd. P/3)

1	2	3	4	5	6	7	8	9	10
12	Murshidabad	Bhagirathi	Bank erosion on the right bank of river Bhagirathi at Diar Balagachi under P.S. & Block Sagardighi. under G.A.E. Divn. No.-I. Dist. Murshidabad E.W.L. 4500 M.	NIL	Partially damaged	4500 M.	Bank Erosion	NIL	
13	Murshidabad	Bhagirathi	Bank erosion on the right bank of river Bhagirathi at Islampur under P.S. & Block Sagardighi under G.A.E. Divn. No.-I. Dist. Murshidabad E.W.L. 1000 M.	NIL	Partially damaged	1000 M.	Bank Erosion	NIL	
B. Ganga Anti Erosion Division - II									
14	Murshidabad	Padma	P.S. & Block Raninagar-II	--	Partially damaged	Partially damaged the emergent protection work at Pashcim Beechpara (Bamnabad)	Bank erosion of right bank of river Padma about 1100 M. (From Paschim Beechpara to Shibnagar mouza)	--	--
C. Berhampore Irrigation Division									
15	Murshidabad	Kana-Mayurakshi, Dwarka, Bele, Chuatore	Kandi, Bharatpur		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
16	Murshidabad	Kana-Mayurakshi, Dwarka	Kandi, Khargram		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
17	Murshidabad	Kana-Mayurakshi	Kandi		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
18	Murshidabad	Mayurakshi, B ele	Burwan, Bharatpur		Partially damaged		Vast numbers of raincuts and at some area slips	NIL	

(Contd.....P/4)

1	2	3	4	5	6	7	8	9	10
19	Murshidabad	Mayurakshi	Burwan		Partially damaged		on the slope occurred Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
20	Murshidabad	Mayurakshi	Burwan		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
21	Murshidabad	Mayurakshi	Burwan		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
22	Murshidabad	Bele	Bharatpur		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
23	Murshidabad	Bele, Chuatore	Bharatpur		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
24	Murshidabad	Kuiya	Bharatpur		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
25	Murshidabad	Dwarka	Kandi	One number breach and damages to the embankment occurred	Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	50 Sq Km. (apprx.)

(Contd.....P/5)

1	2	3	4	5	6	7	8	9	10
26	Murshidabad	Dwarka, Brahmani	Nabagram		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	50 Sq Km. (apprx.)
27	Murshidabad	Dwarka	Kandi		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
28	Murshidabad	Bhagirathi	Beldanga		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
29	Murshidabad	Babla	Beldanga-II& Rejinagar		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
30	Murshidabad	Babla	Beldanga-II& Rejinagar		Partially damaged		Vast numbers of raincuts and at some area slips on the slope occurred	NIL	
31	Murshidabad	Bhairab	Domkal		Partially damaged		Erosion of bank occurred	NIL	
32	Murshidabad	Jalangi	Nowda		Partially damaged		Erosion of bank occurred	NIL	
33	Murshidabad	Bhairab	Domkal		Partially damaged		Erosion of bank occurred	NIL	
34	Murshidabad	Bhagirathi	Beldanga		Partially damaged	Meliani Ferryghat	Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
35	Murshidabad	Bhagirathi	Beldanga		Partially damaged		Erosion at the toe of the work	NIL	

1	2	3	4	5	6	7	8	9	10
							occurred and due to that entire work has been threatened.		
36	Murshidabad	Bhagirathi	Beldanga		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
37	Murshidabad	Bhagirathi	Berhampore		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
38	Murshidabad	Bhagirathi	Berhampore		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
39	Murshidabad	Bhagirathi	Beldanga		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
40	Murshidabad	Bhagirathi	Berhampore		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
41	Murshidabad	Bhagirathi	Berhampore		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	

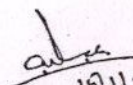
1	2	3	4	5	6	7	8	9	10
42	Murshidabad	Bhagirathi	Berhampore		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
43	Murshidabad	Bhagirathi	Berhampore		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
44	Murshidabad	Bhagirathi	Beldanga		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
45	Murshidabad	Bhagirathi	Beldanga		Partially damaged		Erosion at the toe of the work occurred and due to that entire work has been threatened.	NIL	
D. Nadia Irrigation Division									
46	Nadia	Bhagirathi	Udaychandpur in nakashipara Block				Bank erosion		NIL
47	Nadia	Bhagirathi	Matiary in kaliganj Block				Bank erosion		
48	Nadia	Bhagirathi	Parniamatpur in Ranaghat-I Block				Bank erosion		
49	Nadia	Bhagirathi	Stamerghat in Santipur Block				Bank erosion		
50	Nadia	Bhagirathi	Sanyalchar in Chakdaha Block				Bank erosion		
51	Nadia	Padma	Bausmari in Karimpur-II Block				Bank erosion		
52	Nadia	Bhagirathi	Tengridanga in Santipur Block				Bank erosion		
53	Nadia	Jallangi	Panditpur in Krishnagar-II Block				Bank erosion		
54	Nadia	Jallangi	Chander Ghat in Tehatta-II Block				Bank erosion		
55	Nadia	Jallangi	Hanspukuria in Tehatta-II Block				Bank erosion		
56	Nadia	Jallangi	Iswarchandrapur in Tehatta-I Block				Bank erosion		
57	Nadia	Churni	Betna Gobindapur in Hanskhali Block				Bank erosion		

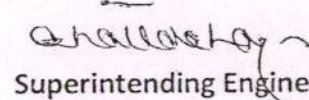
**STATEMENT OF DAMAGES TO EMBANKMENTS / STRUCTURES IN DIFFERENT DISTRICTS OF WEST BENGAL
DURING FLOOD 2009**

Name of the Division : Damodar Head Works Division

Name of the Circle : Damodar Irrigation Circle

Sl. No.	Districts	River	Damaged site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely / Partially damaged	Damages to protective works	Slip / Bank Erosion	Sluice (No.)	
1.	Bankura	Damodar	Vill : Madhabpur & Jalanpur P.S. & Block Barjora & Mejia	172 M	Severely	---	---	---	8 Km ²
2.	Burdwan	Damodar	Vill : Rondia P.S. & Block : Galsi	---	---	65 M		Anderson Weir	


 19/11/10
 Executive Engineer
 Damodar Head Works Division

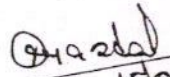

 Superintending Engineer
 Damodar Irrigation Circle

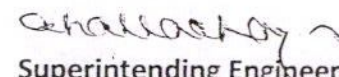
**STATEMENT OF DAMAGES TO EMBANKMENTS / STRUCTURES IN DIFFERENT DISTRICTS OF WEST BENGAL
DURING FLOOD 2009**

Name of the Division : Damodar Canal Division

Name of the Circle : Damodar Irrigation Circle

Sl. No.	Districts	River	Damaged site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely / Partially damaged	Damages to protective works	Slip / Bank Erosion	Sluice (No.)	
1.	Burdwan	Damodar (Left Bank)	Gogram P.S & Block : Galsi	---	Partially damaged	---	---	---	Nil
			Jujuty P.S & Block : Galsi	---	Partially damaged	Partially damaged	---	---	Nil
			Sadarghat P.S Burdwan Sadar Block : Burdwan	---	Partially damaged	---	---	---	Nil
			Amirpur P.S Burdwan Sadar Block : Burdwan	---	Partially damaged	---	---	---	Nil
			Palla P.S & Block : Jamalpur	---	Partially damaged	---	---	---	Nil
			Sarangpur P.S & Block : Jamalpur	---	Partially damaged	---	---	---	Nil


 15/01/10
 Executive Engineer
 Damodar Canal Division


 Superintending Engineer
 Damodar Irrigation Circle

STATEMENT OF DAMAGES TO EMBANKMENTS / STRUCTURES IN DIFFERENT DISTRICTS OF WEST BENGAL DURING FLOOD 2009

Name of the Division : Lower Damodar Irrigation Division

Name of the Circle : Damodar Irrigation Circle

Sl. No.	Districts	River	Damaged site / Police Station / Block	Nature & extent of damages					Inundated Area
				Breach	Severely / Partially damaged	Damages to protective works	Slip / Bank Erosion	Sluice (No.)	
1.	Burdwan	Damodar	P.S & Block : Jamalpur	---	Partially damaged (12 Km)	---	---	---	Nil
2.	Burdwan	Damodar	P.S & Block : Jamalpur	---	---	0.25 Km	---	---	Nil
3.	Hooghly	Damodar	P.S & Block : Tarakeswar	---	Partially damaged (10 Km)	---	---	---	Nil
4.	Hooghly	Damodar	P.S & Block : Dhaniakhali	---	Partially damaged (5 Km)	---	---	---	Nil
5.	Hooghly		P.S & Block : Tarakeswar (Kanaria, Gobindabazar, Paschim Santoshpur, Binogram)	---	---	1.2 Km	---	---	Nil

Smyar Banerji
Executive Engineer
Lower Damodar Irrigation Division

Shankar Chatterjee
Superintending Engineer
Damodar Irrigation Circle

Damage Report for which allocation is proposed out of Calamity Relief Fund (CRF) for taking up restoration of damaged
Embankments / Sluices / Structures under Howrah Irrigation Division
Irrigation & Waterways Directorate due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09

Dist. ----- Hooghly

Sl No	Location of Damage (Block / P S / Mouza / G P	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage (i.e area inundated, communication disrupted, any others	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund(in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
1	Ramsharanchak (Khanakul - I / Khanakul / Ramsharanchak / Ramsharanchak)	Upper Rampur	Left	40m	9 9 09	Due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09	Breached	Inundated	18	13.89
2	24 - Pur Maitypara, chakrapara, Barapara, Prodhanpara, Lalbabaashram (Khanakul - I / Khanakul / 24 - Pur / Arunda)	Upper Rampur	Left	2000mt	9 9 09		Severe Damage due to overtopping	Inundated	30	34.45
3	24 - Pur Bazar to Zero - Point (Khanakul - I / Khanakul / Arunda)	Upper Rampur Inspection path	Left	5000mt	9 9 09			Inundated	13	
4	Balaichak to Barkantala Ghat (Khanakul - II & Khanakul - II / Khanakul / Chingra)	Upper Rampur Inspection path	Left	3000mt	9 9 09			Inundated	45	32.03
5	Telirdaha, Golaichak, 24pur Bazar (3 spots) (Khanakul II / Khanakul / Balaichak / Chingra)	Upper Rampur	Left	400mt	9 9 09		Breached	Inundated	80	77.79
6	Chingra & Balaichak (Khanakul - II / Khanakul / Chingra & Balaichak / Chingra)	Upper Rampur	Left	1000mt	9 9 09		Severe Damage due to overtopping	Inundated	25	24.79
7	Mostafapur, Talghogi, Sheepara, 16 - Bigha (Khanakul - II / Khanakul / Mostafapur Talghogi / Palashpai)	Hurhura	Left	4000mt	9 9 09		Damage due to severe slip raincut	Chance of Inundation	70	71.55
TOTAL =								281.00	254.50	

Damage Report for which allocation is proposed out of Calamity Relief Fund (CRF) for taking up restoration of damaged Embankments / Sluices / Structures under Howrah Irrigation Division
Irrigation & Waterways Directorate due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09

Dist. ----- Howrah

Sl. No	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage to area inundated, communication disrupted, any others	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund (in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
1	Rampur zero point 3 nos. spots (U.N. Pur / U.N. Pur / Rampur / Rampur)	Upper Rampur	Left	200m	9.9.09	Due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09	Breached	Inundated	24.5	24.39
2	Harali, Gaza, Pancharul, Itarai (U.N. Pur / U.N. Pur / Harali, Gaza, Pancharul, Itarai / Harali, Gaza, Pancharul, Itarai)	Upper Rampur	Left	3000mt	9.9.09		Severe Damage due to overtopping	Inundated	30	37.32
3	24 - Pur Bazar to Zero - Point (U.N. Pur / U.N. Pur / Rampur)	Upper Rampur inspection path	Left	5000mt	9.9.09			Inundated	51	50.06
4	Pancharulbazar to Rampur left embankment, (U.N. Pur / U.N. Pur / Pancharul / Pancharul)	Inspection path	Left	800mt	9.9.09			Inundated	15	13.86
5	Joypur Beltala to Kundolia & Narit (Amta - II / Joypur / Kundolia & Narit / Kundolia & Tazpur)	Lower Rampur	Left & Right	8000mt	9.9.09			Inundated	80	81
6	Satpota, Joypur, Kamargoria, Karunadaha (Amta - II / Joypur / Satpota, Joypur, Kamargoria, Karunadaha / Satpota, Joypur)	Lower Rampur	Right & Left	2000mt	9.9.09	Due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09	Severe Damage due to overtopping	Inundated	15	15.63
7	Chardaha & Danki (Amta - I / Amta / Chardaha / Rashpur)	Someswar	Left	200mt	9.9.09		Damage due to severe slip, rain cut and ghoges	Chance of Inundation	2	1.99
8	Penro, Harishpur, Chaltakhali, Baramahara (Amta - I / Amta / Penro & Chaltakhali / Binala - Krishnabati)	Madaria	Left	4000mt	9.9.09			Chance of Inundation	60	59.22
9	Harishpur Palpara to Danki (Amta - I / Amta / Danki / Binala - Krishnabati)	Madaria	Right	3000mt	9.9.09			Chance of Inundation	45	44.98
10	Paliara, Gourangachak, Nayachak, Kalyanchak (U.N. Pur / U.N. Pur / Paliara, Gourangachak / Khila)	Damodar	Left	4000mt	9.9.09			Chance of Inundation	40	37.96
11	Simchak, Balichak (U.N. Pur & Amta - I / U.N. Pur & Amta / Balichak / Balichak)	Damodar	Left	4000mt	9.9.09			Chance of Inundation	40	39.94
								C/T	402.5	406.35

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A.Pot. 20
11/1/10
(8)35

Sl. No.	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embank	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage (i.e. area inundated, communication disrupted, any others)	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund(in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
12	Daora, Ranapara, Gazipur, Fatepur (Amta - I / Amta / Daora & Fatepur / Udang)	Damodar	Left	3000mt	9.9.09	Due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09	Damage due to severe slip,raincut and ghoges	Chance of Inundation	30	28.86
13	Bagua, Rashpur, Sontoshnagar (Amta - I / Amta / Rashpur / Rashpur)	Damodar	Left	6000mt	9.9.09			Chance of Inundation	60	47.77
14	Ranapara, Gazipur, Udang, & Fatepur - 14 Nos. Approach road (Amta - I / Amta / Daora & Fatepur / Udang)	Damodar	Left	420mt	9.9.09			Chance of Inundation	28	24.19
15	Uttar Jhaporda (Domjur / Domjur / Uttar Jhaporda / Uttar Jhaporda)	Kamarnala	Left & Right	2000mt	9.9.09		Severe Damage due to overtopping	Inundated	25	24.91
16	Naya Colony (Domjur / Domjur / Uttar Jhaporda / Uttar Jhaporda)	Kamarnala	Both	1000mt	9.9.09	Inundated		12		
17	Chouhori (Domjur / Domjur / Chouhori / Chouhori)	Metia	Right	500mt	9.9.09	Inundated		5		
18	Fultala Hana (Domjur / Domjur / Uttar Jhaporda / Uttar Jhaporda)	Metia	Right	1000mt	9.9.09	Due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09	Severe Damage due to overtopping	Inundated	12	11.96
19	Badamtala Burning Ghat (Domjur / Domjur / I)	Rajapur	Left & Right	3000mt	9.9.09			Inundated	45	24.05
20	Near Fakirpara wooden Bridge (Panchla / Suborara / I)	Rajapur	Left & Right	2500mt	9.9.09		Severe damage due to sudden high discharge	Inundated	25	
21	Gabberia Hospital (Panchla / Subarara / Gabberia / Gabberia)	Rajapur	Left & Right	1000mt	9.9.09					
22	Near Babla Hana sluice(J.B.Pur/J.B.Pur/Chandul/J.B.Pur-1)	Kana Damodar	Right	1500mt	9.9.09		Damage due to severe slip,raincut and ghoges	Inundated	5	
23	Jadupur Colony & Ichanagari (J.B.Pur/J.B.Pur/Jadupur & Ichanagari/Patihal & Ichanagari)	Kana Damodar	Right	1000mt	9.9.09					
24	Tetulberiasaswan, Sekpara, Panditpara, Nayachalk, Magurkhali etc (Panchla/ Panchla)	Kana Damodar	Left	1500mt	9.9.09	Damage due to severe slip,raincut and ghoges	Inundated	20	21.99	
25	Budul, Tehatta, Bhuiapara, Bramahadyathapara, Daragachalk etc (Uluberia/ Uluberia)	Kana Damodar	Right	1000mt	9.9.09					Inundated
								C/O	709.5	605.59

Sl. No.	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Area Inundated / Area Affected / Disrupted any Affairs	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund (in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
26	5 nos. Wooden bridge at Panpur, Dadpur, Jalabiswanathpur, Budul, Banharipur (Amta-I, Pacchla/Amta, Panchla)	Kana Damodar		90mt	9.9.09	Due to high discharge from Down	Collapsed due to sudden high discharge	Communication Disruption	10	12.91
27	20 Nos. Breached at Nischindapur, Bhateghori Swasan, Bhateghori Beltala, Bhateghori Ananta Majhi's Pond, Bhateghori Monosha Mandir, Bhateghori Mohon Majhi's House, Sehagori, Satpota Daha, Satpota Club, Satpota Swasan, Satpota Chuchkhali, Ranjabar, Kamargoria, Souria etc (Amta-II/Joypur)	Lower Rampur	Right & Left	950mt	10.9.09		Breached	Inundated	114	128.42
28	Near Kamaria Sluice(U N Pur/U.N.Pur)	Kamaria Khal	Left	150m	10.9.09		Severly damaged due to sudden high discharge	Inundated	5	4.99
29	Ramsaran Wooden bridge(U.N.Pur/U.N.Pur/)	Upper Rampur		22m	10.9.09		Collapsed due to sudden high discharge	Communication Disruption	2	1.96
30	Tegechia to Narit R.C.C bridge(Amta-II/Amta)	Lower Rampur	Left	2000mt	10.9.09		Damage due to Overtopping	Inundated	20	18.26
31	Mohishamuri Koleypara Wooden bridge (Amta - I / Amta - I)	Lower Rampur		18m	10.9.09		Collapsed due to sudden high discharge	Communication Disruption	2	2.85
32	Pearapur Dompura, Bhutbanga(U.N. Pur / U.N.Pur)	Upper Rampur	Left	25mt	10.9.09		Breached	Inundated	10	9.82
33	Satpota Wooden bridge (Amta - II / Joypur)	Lower Rampur		22m	10.9.09		severly Damage due to side slip, raincut	Communication Disruption	2	1.81
34	25 nos. sluice in different block	different embktt.		25nos.	7/9 -- 11/9		Severly damaged due to sudden high discharge	Inundated	75	60.6
								CRF	949.5	847.21

Sl. No.	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage i.e. area inundated, communication disrupted, any others	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund (in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
35	Kuldhipi & Gorupora, L.D. Sub Div No I Block-Amta-II PS-Joypur, GP-Uttorevatore	Hurhura	Left	2000mt	09.09.09		60 M Breach & rest severely damaged due to side slip, raincut etc.	Inundated	21	0
36	Bangalpur, Khadinan, Modhobpur, L.D. Sub Div No I Block-Bagnan, P.s-Bagnan, Bangalpur, Kudinana, Madhabpur, GP- Bangalpur, Chandipur	Damodar	Left	3300mt	09.09.09		Severely damaged due to side slip, raincut, ghogues etc.	Inundated	22	0
37	Gopalpur, Monshatala, Chandrapur, L.D. Sub Div No I Block- bagnan, Ps-Bagnan, G.P.- Bagnan-I & II, Mouza-Gopalpur & Chandrapur	Damodar	Right	2700mt	09.09.09			Inundated	12	0
38	Koria, Bainer, L.D. Sub Div No I, Block-Bagnan I, Ps- Bagnan, Mouza- Koria, Bainer, GP- Bainer, Kalna, Baxi	Gaighata Khal	Right	2700mt	09.09.09	Due to high discharge from Down Durgapur Barrage	Severely damaged due to side slip, raincut, ghogues etc.	Inundated	5	0
39	Mankur, Baxi, Bhirampur, Deogram, Depamalita, Manlok, L.D. Sub Div No I Block-Bagnan I & II, Ps- Bagnan, Mouza -Baxi, Manikpur, Depamalita, GP- Baxi, Kahampur, Sarat	Roopnarayan	Left	3000mt	09.09.09			Inundated	20	0
40	2nd Colony (ch-8890m to ch-8950m) at Bauria (P.S.-Bauria, under Ulberia Municipality)	Embankment of River Hooghly	Right	60.0M	05.09.09 to 08.09.09	Heavy Shower & tidal thrust	Damage due to severe slip, raincut	Threat of Inundation	5.9	0
41	Dipo Para (ch -8520 m to ch-8620 m) at Bauria (P.S.-Bauria, under Ulberia Municipality)	Embankment of River Hooghly	Right	100.0M	05.09.09 to 08.09.09		Damage due to severe slip, raincut	Threat of Inundation	5	0
42	Railway Yard (ch-8420 m to ch-8520m) at Bauria (P.S.-Bauria, under Ulberia Municipality)	Embankment of River Hooghly	Right	100.0m	05.09.09 to 08.09.09		Damage due to severe slip, raincut	Threat of Inundation	5	0
43	Howrah Drainage channel near ch-2100 m from outfall of river Hooghly, Sultanpur Mouza, P.S.-Jaggacha)	Howrah Drainage channel	Right	70.0 M	08.09.09 & 09.09.09		Damage due to overtopping	Inundation	0.96	0
								C/O	1046.36	847.21

Sl. No	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage i.e. area inundated, communication disrupted, any other.	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund (in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
44	Peneposta Jetty Ghat to Rathtala(Sakrail/Sakrail/Panipur -II)	River Hooghly	Right	100.0M	08.09.09 & 09.09.09	Due to high discharge from Down Durgapur Barrage	Damage due to severe slip, raincut	Threat of Inundation	4.9	0
45	Rajgunj at different site(Sakrail/Sakrail/Panipur -II)	River Hooghly	Right	120.0 M	08.09.09 & 09.09.09			Threat of Inundation	6	0
46	Gakulanando Mahamandoleswar Ashram (Sakrail/Manipur)	River Hooghly	Right	45.0 M	08.09.09 & 09.09.09			Threat of Inundation	1.5	0
47	Adjusent to Elahi Bhandar(Bauria,Ulberia Municipality	River Hooghly	Right	50.0 M	08.09.09 & 09.09.09			Threat of Inundation	8	0
48	Gauri Ashram (Bauria,Ulberia Municipality P.S.-Bauria)	River Hooghly	Right	80.0 M	08.09.09 & 09.09.09		Damage due to severe slip, raincut	Threat of Inundation	5	0
49	Sundari Mahal Sluice(Bauria,Ulberia Municipality P.S.-Bauria)	River Hooghly	Right		08.09.09 & 09.09.09			Threat of Inundation	10	0
50	Near Sarat Pally(Bauria,Ulberia Municipality P.S.-Bauria)	River Hooghly	Right	150.0 M	08.09.09 & 09.09.09			Threat of Inundation	7	0
51	Chakkasi Pirtala,Uluberia Municipality,P.S.-Uluberia	River Hooghly	Right	70.00 mt	09/09/2009	Due to high discharge from Down Durgapur Barrage	Severe erosion & settlement of ebkt	Threat of Inundation	3	0
52	Banstala ,Uluberia Municipality,P.S.-Uluberia	River Hooghly	Right	50.00 mt	09/09/2009			Threat of Inundation	3	0
53	Jagadishpur Sasan Uluberia Municipality,P.S.-Uluberia	River Hooghly	Right	30.00 mt	09/09/2009			Threat of Inundation	2	0
54	Kalinagar 4 Vent sluice, Uluberia Block-I, P.S.-Uluberia,Kalinagar	River Hooghly	Right	-----	09/09/2009	Excessive rise of water level and wave thrust due to Cargo vessels	Defunct condition	Threat of Inundation	1	0
55	Foreshore Uluberia Municipality,P.S.-Uluberia	River Hooghly	Right	30.00 mt	09/09/2009		Severe erosion & settlement of ebkt	Threat of Inundation	2	0
56	Mathurhana, Uluberia Block-I, P.S.-Uluberia, Kalinagar	River Hooghly	Right	72mt	09/09/2009			Threat of Inundation	4	0
57	Basudevpur Shyampur Block-I, P.S.-Shyampur,Bahira	River Hooghly	Right	150mt	09/09/2009			Threat of Inundation	7	0
58	Amarpur Shyampur-I Block-I, P.S.-Shyampur,Baneswarpur	River Hooghly	Right	80mt	09/09/2009			Threat of Inundation	5	0
								CK	1115.76	847.21

Sl No.	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage (i.e. area inundated, communication disrupted, any others)	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund (in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
59	Jalabad 4 Vent Sluice Shyampur-I Block-I, P.S.-Shyampur,	River Rupnarayan	Rupnarayan	River Left	09/09/2009	Tidal effect and heavy rainfall	Defunct condition	Threat of Inundation	8	0
60	Jhumjumi Shyampur- Block-II, P.S.- Shyampur D.Mandol Ghat I&II	River Rupnarayan	Rupnarayan	90mt	09/09/2009		Severe erosion & settlement of ebktt	Threat of Inundation	3	0
61	Shasati Shyampur-Block-II, P.S.- Shyampur Shasati,	River Rupnarayan	Rupnarayan	180mt	09/09/2009		Severe erosion & settlement of ebktt	Threat of Inundation	6	0
62	Gouriganga 5 vent Sluice, Uluberia Municipality, P.S.-Uluberia	River Hooghly	Right	-----	09/09/2009	Excessive rise of water level and wave thrust due to Cargo vessels	Defunct condition	Threat of Inundation	1.8	0
63	Seven no. sluice on both bank of M.M. Canal	Midnapur Main Canal	Right & Left	-----	09/09/2009	Tidal effect and heavy rainfall causes mechanical failure	Defunct condition	Threat of Inundation	6.75	0
64	Five no. sluice on both bank River Damodor	River Damodor	Right & Left	-----	09/09/2009		Defunct condition	Threat of Inundation	8	0
65	Naopala Sluice along Rupnarayan left sluice	River Rupnarayan	Left	---	09/09/2009		Defunct condition	Threat of Inundation	3.5	0
66	Orphuly Bagnan- Block-II, P.S.-Bagnan Orphuly	River Rupnarayan	Left	90mt	09/09/2009		Severe erosion & settlement of ebktt	Threat of Inundation	3	0
								C/O	1155.81	847.21

Sl. No	Location of Damage (Block / P.S. / Mouza / G.P.)	River / Channel / Khal	Bank	Length of Damage (in m) / Name of embankment	Date of occurrence of Damage	Cause of Damage	Nature of Damage	Impact of damage (i.e. area inundated, communication disrupted, any others)	Any other information / Cost of restoration (in lakh of Rs.)	Requirement of CRF fund (in lakh of Rs.)
1	2	3	4	5	6	7	8	9	10	11
67	NH-6 to Bansberia SO (Bagnan-I Block, Bagnan P.S.)	River Damodor	Left & Right	2*1500 mt	09/09/2009	Due to high discharge from Down Durgapur Barrage and heavy downpour on 08.09.09	Severe erosion & settlement of ebkt	Threat of Inundation	3	0
68	Supplying 150000 nos Gunny bag for issuing to different blocks				08/09/2009, 09/09/2009, 10/09/2009.			Threat of Inundation	7.12	0
								TOTAL=	1165.93	847.21

5 2
09.10.2009

Statement of damages to Embankment/Structures in different districts of West Bengal during the Flood'2009(AILA)

Sl. No.	Districts	River	Damaged site/Police Station/Block	Nature and Extent of damages					Inundated Area •	
				Breach	Severely/ Partially damaged	Damages to Protective works	Slip/ Bank Erosion	Sluice (No)		
1	NORTH PARGANAS	Kalindi, Sahebkhali, Raimongal, Goureswar, Dansa, Baro Kalagachi	P.S. & Block- Hingalganj	12.500 km.	Severely- 46.500km Partially- 11.000km	1.000km		21 nos	165.89Sq.km	
Damaged sites- Ramapur, Pukuriachak, Madhabkati, Hemnagar, Perghumti, Hingalganj, Singerkati, Khosbus, Saheb khali, Chanralkhali, Sridharkati, Malekhan, ghumti, Kalitala, Haridaskati, Samser-nagar, Bankra, Kedarchak, Putia math bari, Lebukhali, Sandelerbill, Mamudpur, Jogeshganj, Banstala, Kothabari, Bispur, Bot tala, Choto Sahebkhali, Bainara, Kumirmari, Bailani, Dhanikhali, Durgapur, Panshighata, Swarupkati, Bhanderkhali, Rupmari, Khejurberia, Dharamberia, Mamudpur,										
2		24	Katakhali Dansa, Ichamoti, Goureswar,	P.S. & Block- Hasnabad	1.500km	Severely- 23.500km Partially- 5.000km	0.500km		11nos	97.46Sq.km
Damaged sites- Khanpukur, Angnara, Chakpatli, Tangramari, Barunhat, Champatala, Kalutala, Laskarnagar, Rajnagar, Hamgura, Tangra, Sulkuni Abad.										
3			Ichamoti,	P.S. & Block- Basirhat-I, Basirhat	0.500km	Severely- 4.500km Partially- 3.000km				29.50Sq.km
Damaged site- Sangrampur, Chowrah, Naihati, Akherpur, Panitor, Bagundi, Amarkati, Tapamirzapur,										
4			Ichamoti,	P.S. & Block- Basirhat-II, Basirhat		Severely- 1.500km Partially- 2.000km				17.61Sq.km
Damaged site- Harishpur,										
5		Geographical Area- 4094 Sq.km	Ichamoti,	P.S. & Block- Swarupnagar		Severely- 1.500km Partially- 4.000km				40.74Sq.km
Damaged site- Nalbora, Baglani, Gokulpur, Kabilpur, Tipi.										
6		Benti, Ghatihara, Bidyadhari, Dansa	P.S. & Block- Sandeshkhali-I, Sandeshkhali	3.000km	Severely- 16.000km Partially- 8.000km	1.000km		24nos	105.10Sq.km	
Damaged site- Kharihat, Baro-Sehara, Raipur, Choto-Sehara, Bholakhali, Kalinagar, Ghoshpur, Gajalia, Putimari, Akhratola, Netyaberia,										

Sl. No.	Districts	River	Damaged site/Police Station/Block	Nature and Extent of damages					Inundated Area
				Breach	Severely/ Partially damaged	Damages to Protective works	Slip/ Bank Erosion	Sluice (No)	
7	NORTH 24 PAR G A N A S	Raimongal, Dansa, Baro-Kalagachi, Bali, Bidya, Rampur, Choto-Kalagachi, Tushkhali,	P.S. & Block- Sandeshkhali-II	15.000km	Severely- 28.500km Partially- 10.000km	2.000km	0.500km	31nos	126.25 Sq.km
			Damaged sites- Dhamakhali, Rampur, Jhupkhali, Bermajur, Monipur, Atapur, Tushkhali, Darirjangan, Bhanga Tushkhali, Jeliakhali(W), Sukhduani, Joygopalpur, Jotishpur, Gabberia, Lal kachari, Hatgacha, Sitalia,						
8		Buri, Bidyadhari, Jagannath Khal,	P.S. & Block- Minakhan	1.000km	Severely- 5.000km Partially- 7.000km			6nos	47.13 Sq.km
			Damaged sites- Uchildah, Mohanpur, Mullickgheri, Bachra, Bachra abad, Abad Malancha, Chaital,						
9		Metia, Buri, Bidyadhari, Jagannath Khal, Haroagang-Kultigang	P.S. & Block- Haroa	1.000km	Severely- 5.500km Partially- 6.000km			3nos	53.48 Sq.km.
			Damaged sites- Dakshin Ranigachi, Samla, Raikhan, Bakjhuri, Ranigachi, Kamarganti, Bantala,						
10	Area- 4094 Sq.km	Ichamoti,	P.S. & Block- Baduria	0.500km	Severely- 2.500km Partially- 2.000km		0.500km		39.46 Sq.km
			Damaged sites- Ramchandrapur,, Kulia, Media, Polta, Sarfarajpur, Fatullapur, Bajitpur, Dwip Media.						
			TOTAL-	35.000km		4.500km	1.000km	96nos	722.62Sq.km