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



**ANNUAL FLOOD REPORT 2001**

*Executive Engineer  
Chief Engineers' Drawing Office  
Jalasampad Bhawan, Bidhan Nagar  
Kolkata-700 091.*

December 2001.

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## INDEX

	Page
1. Introduction	1
1.1 River Basin	1
1.2 River System	2
1.2.1 Brahmaputra Basin Drainage System	2
1.2.2 Ganga Basin	3
1.2.3 Subarnarekha Basin	9
2. Rainfall	9
2.1 Rainfall Pattern	10
2.1.1 Himalayan & Sub-Himalayan Region	10
2.1.2 Gangetic Plain	10
3. Report on Flood during 2001 of West Bengal	12
4. Conclusion	13

## ANNEXE

Annexure-I	Monthly, Monsoon & Yearly district wise Actual and Normal Rainfall along with Percent Departure from Normal for the year 2001.	Sheet -1-14
Annexure-II	Important Reservoir Level and Outflow data during The flood season of 2001.	Sheet -1-7.
Annexure-III	Important Barrage Levels and discharge data during The flood season of 2001.	Sheet -1-2.
Annexure-IV	Gauge Levels of Important Rivers during flood Season of 2001	Sheet-1-30
Annexure-V	Statement of Rainfall Data of different rivers (Sub-Basin wise) within West Bengal during Monsoon Period of 2001.	Sheet -1-2.
Annexure-VI	Statement showing district wise damages during the flood season of 2001	Sheet -1.

## DRAWINGS

1.	Index Map of West Bengal.	One Sheet
2.	Graphs showing the important Reservoir & Barrage Levels during the flood season of 2001.	One Sheet.
3.	Graphs showing the Gauge Levels of important rivers during the flood season of 2001.	Two Sheets.

# ANNUAL FLOOD REPORT-2001.

## I. INTRODUCTION

The State – West Bengal enwreathed with the snow white mountains at the north and with plentiful greenery extending from the foot of the hills to the frothy sea on the south, is a combination of land varying from high regions to the plains. With the Tropic of Cancer running across it, the State is situated between  $21^{\circ} 31'$  &  $27^{\circ} 13' 14''$  North Latitudes and  $85^{\circ} 45' 20''$  &  $88^{\circ}$  East Longitudes. The Geographical area of the State is about 88,752 Sq.Km. The river Ganga geographically divides the State into two regions. In the north – the districts are Coochbehar, Jalpaiguri, Darjeeling, Uttar Dinajpur, Dakshin Dinajpur & Malda and in the South – Murshidabad, Nadia, North 24-Parganas, South 24-Parganas, Purulia, Bankura, Birbhum, Burdwan, Hooghly, Howrah, Midnapore. The onset of the monsoon in the state spreads between middle of June to the middle of October.

89<sup>53</sup>

### 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

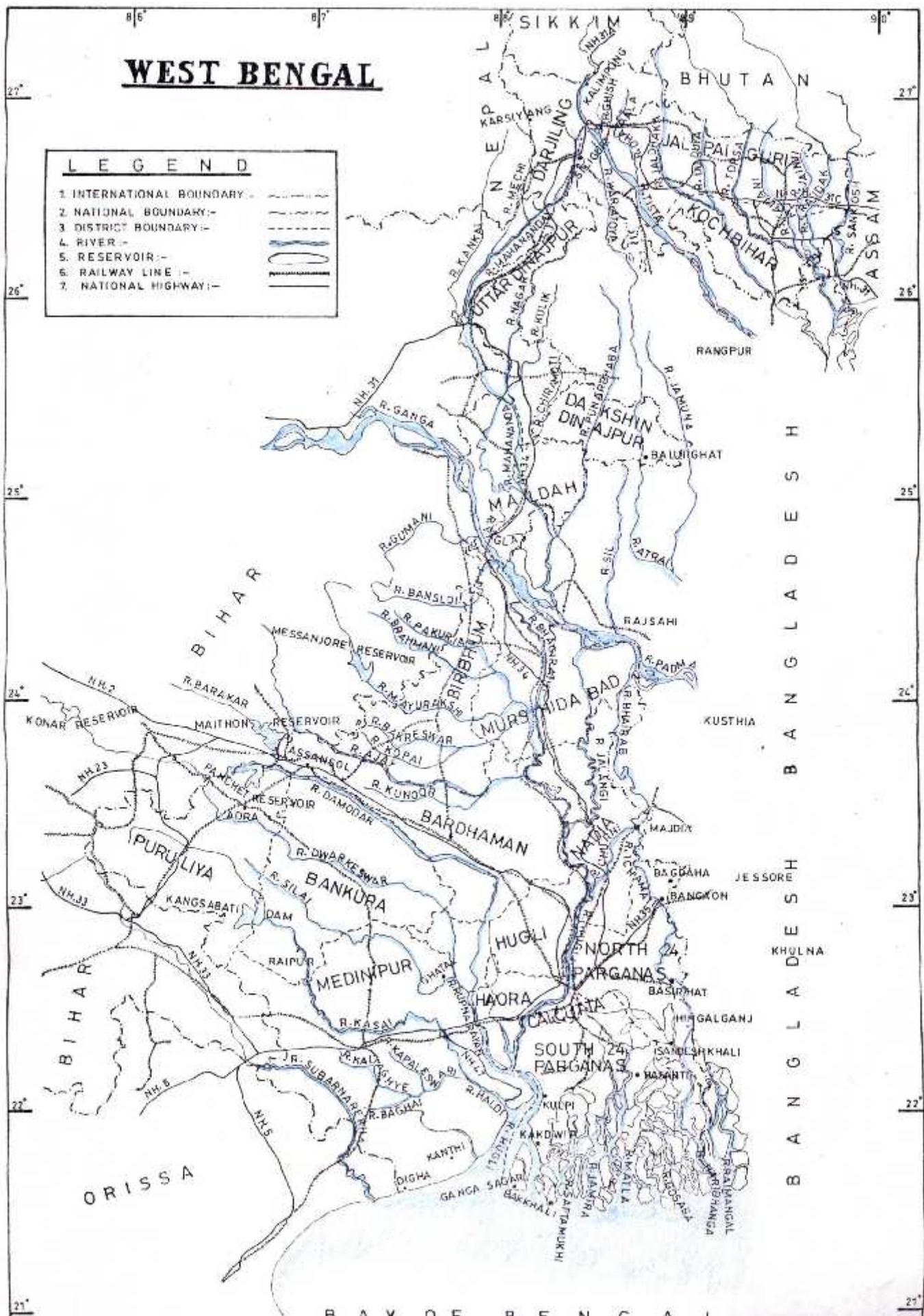
The state can be demarcated into three distinct drainage basins, coming under the Ganga, Brahmaputra & Subarnarekha system respectively. These three main river basins can in turn be divided into Sub-basins having individual catchment of their own. The area-wise distribution of the above main basins in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

1	Brahmaputra Basin	14,353 Sq.Km.	11,860
2.	Ganga Basin including Sundarban Area	72,217 Sq.Km.	74,732
3.	Subarnarekha Basin	2,182 Sq.Km.	2,160

# WEST BENGAL

## LEGEND

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



**REFERENCE**— THIS DRAWING TRACED FROM SURVEY OF INDIA MAP (AFTER REDUCING), DEPARTMENT OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA, COPYRIGHT, 1992.

DRG. NO—C.E.I/1/2001

PREPARED BY—

T. K. MANDAL  
DRAUGHTSMAN  
C.E.'S DRAWING OFFICE  
I. & W. DIRECTORATE

(Signature)  
A. BHATTACHARJEE  
EXECUTIVE ENGINEER  
C.E.'S DRAWING OFFICE  
I. & W. DIRECTORATE

## 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 region of the northern districts. Except Darjeeling, all the areas belong to Brahmaputra Basin. This system consists of a total area of 14,353 Sq.km. nearly 16% 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 region 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 –

Rivers	Catchment Areas	Tributaries
1. Sankosh	72	Chiklajhore
2. Raidak	807	Raidak-I, Raidak-II, Turturi.
3. Torsa	3419	Kaljani, Sil-Torsa, Char-Torsa, Dolong, Sanjai, Ghargharia, Goram, Diana, Pana, Jainti, Gabur-Basra.
4. Jaldhaka	3746	Mujnai, Murti, Diana, Sutanga, Dolong, Dharala, Ghatia, Kumla, Gilandi, Buduya.
5. Teesta	3716	Great Rangeet, Rammam, Rangpo, Mech, 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 the 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 ~~Patna~~ 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 Pitang 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 the mountainous and Submountainous regions, it finally flows into river Dharala and the combined stream, 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 Rangpo 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 BASINS** \* *it receives the flow of Yamuna  
the largest tributary near Allahabad*

The two holy rivers – Bhagirathi and Alakananda originating from the glaciers of the Himalayas at an altitude of 7000 m. join at Dev-Prayag lower down and this combined stream is known as the Ganga. It emerges into the plains at Rishikesh in Uttar Pradesh. After flowing exclusively through Uttar Pradesh, 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, 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 Nalanda  
is called Hooghly & ultimately outfalls into  
the Bay of Bengal near Sagar Island.*

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(C) **TORSA**

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*the Bay of Bengal near Sagar Island* **ANNUAL FLOOD REPORT-2001.**

The Central, Southern and the South-Western parts of the State of West Bengal constitute the Ganga basin. The Ganga, only a stretch of which is now flowing through the narrow Central West line of the present shape of this State had been an active Delta builder.

*2575*  
The total length of the river Ganga from its point of origin to the point where it falls into sea is about 2525 km. (measured along Bhagirathi and the Hooghly), of which 1450 km. lies in Utter Pradesh, 110 km. along Uttar Pradesh and Bihar border, 445 km. in Bihar and 520 km. in West Bengal.

*570* *74,734*  
The Ganga system comprises a total area of 72,217 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	9,460 ✓
(b)	Punarbhava	730 ✓
(c)	Atrai	910 ✓
(d)	Pagla-Banslo	730 ✓
(e)	Dwarka-Brahmani	2,500 ✓
(f)	Bhagirathi-Hooghly	1,170 ✓
(g)	Jalangi	5,344 ✓
(h)	Mayurakshi	2,720 ✓
(i)	Ajoy	2,490 ✓
(j)	Khari-Gangur-Ghea	1,302 4460
(k)	Churni	800 ✓
(l)	Damodar	5,250 ✓
(m)	Dwarkeswar	4,430 ✓
(n)	24-Parganas(South & North) and Calcutta Port Drainage Basin	4,330 4619
(o)	Kangsabati	8,330 2369

SL.No.	Name of River Sub-Basin	Catchment Area in Sq.Km.
p	2	3
(p)	Silabati	3,952 ✓
(q)	Rupnarayan	2,548 ✓
(r)	Pichabani	820 ✓
(s)	Rasulpur	1,130 ✓
(t)	Haldi	980 ✓
(u)	Tidal Zone (Sundarban Areas)	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, Chiramatii, Tangon.
2.	Punarbhava	Punarbhava
3.	Atrai	Atrai
4.	Pagla	Pagla, Banslo, Bagmari.
5.	Brahmoni	Brahmoni, Dwarka.
6.	Bhagirathi	Bhagirathi, Hooghly.
7.	Jalangi	Jalangi, Silamari, Bhairab, Suti.
8.	Mayurakshi	Mayurakshi, Babla, Noon Beel, Sidheswari, Kuiya, Kopai, Bakreswar, Sal, Monikornia, Daoki kana, Mor, Gambhira.
9.	Ajoy	Ajoy, Hinglow, Kunoor.
10.	Khari-Gangur-Ghea	Khari, Brahmoni, Banka, Bangour, Ghea, Behula, Kana
11.	Churni	Churni
12.	Damodar	Damodar, Barakar, Sali.
13.	Dwarkeswar	Gandheswari, Dwarkeswar, Arkasha, Berai.
14.	Rupnarayan	Mundeswari, Dwarkeswar, Berai, Tarjuli, Sankari, Silabati, Joypanda, Kubai, Parang, Kanki, Gandheswari, 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 NOTE ON THE SUB-BASINS**

##### **I. MAHANANDA**

The river Mahananda originating from Paglajhora near Kurseang town in the Dist. of Darjeeling, 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. During its course of flow, at places it forms the Indo-Bangladesh Border. The river Mahananda carrying the flow of four tributaries, namely, Nagar, Kalindri, Tangon and Punarbhava, 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**

*chaoai*

Some rivers like Sahu, Neem, Talma, Chaoai, Panga originating from the high lands in the district 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 the 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-KULIK, GAMARI, CHIRAMATI, TANGON, KALI NDRI**

All these rivers flow through the districts Maldah 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 southernly course, it receives a spill channel of Mahananda and is joined by Kulik, 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 Mahananda. It rises in Bangladesh. It flows through the districts of North-Dinajpur and Maldah, and meets Mahananda on the boundary of Maldah and Bangladesh.

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

## **4. PAGLA-BANSLOI-BRAHMAMI**

These rivers originate from Rajmahal hill of Bihar. Flowing easterly across Birbhum district, they enter Murshidabad district as the tributaries of the river Bhagirathi.

## 5. JALANGI-BHAIRAB

Jalangi takes off 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 period of rains, when it receives water from Padma. The river ends its journey by finally outfalling into the river Hooghly near Nabadwip town in Nadia district.

Bhairab takes off from the river Ganga in P.S. Lalbag of Murshidabad district. It is now almost a dead channel but during rainy season for a few days it receives water from Padma.

## 6. ICHAMATI-CHURNI

River Mathabhanga 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 kilometers through the district in a south-west direction 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-HOOGLY

The river Bhagirathi divides the Murshidabad district into two parts. 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 or the Hooghly is the main river in the state. It is in fact the main artery of flow. Before the 12<sup>th</sup> 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 towards downstream due to the run off and outflows receives from a number of eastern and western tributaries. It also forms the boundary between North 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. Carrying flows of different tributaries, it outfalls in Hijol Beel in the district of Murshidabad. Babla takes off from the Beel and finally drains into the river Bhagirathi.

**9. AJOY**

*Jharkhand*

It originates from the hills near Deoghar in Bihar. The Principal tributaries of the river are Pantro, Janiti, Darua, Kunoor and Hinglow. There are some pockets in the Ajoy- Kunoor catchment which suffer from frequent inundation. Large areas of Burdwan and Birbhum districts face inundation when ever floods of the Ajoy synchronise with that of the Mayurakshi, the Pagla, the Bansloi and Bhagirathi.

**10. DAMODAR**

*Jharkhand*

The river-Damodar originating from Palamou hills in Bihar, 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 floods and outfalls into the Hooghly.

**11. DWARAKESWAR-SILABATI-RUPNARAYAN**

The lower tidal reach below the confluence of Dwarakeswar and Silabati is known as Rupnarayan. After receiving the main flow of the river Damodar through Mundeswari and branch of Kangsabati i.e. Old Cossye or Palaspai Khal, it ultimately outfalls into Hooghly. The river is tidal throughout its entire course.

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

Silabati originates in Purulia district. It receives water of Joypanda and traverses through the district of Midnapore.

**12. KANGSABATI-KALIAGHAI-HALDI**

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

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

### **13. RASULPUR**

The river Rasulpur is a river of Contai Sub-Division of Midnapore district and it is formed by three streams namely Bagda, Sarpai and Madhakhali and ultimately falls into the river Hooghly.

### **14. TIDAL RIVERS OF SOUTHERN WEST BENGAL**

Apart from the rivers described earlier within the Ganga and Brahmaputra river systems, there is a group of rivers in Southern part of the state which fall in the tidal 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 <sup>inter</sup> connecting channels, ~~thus~~ dividing the land spill channel 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, Thakuran, Matla, Gosaba, Hariabhangha, 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. It has its origin in the hills of Chotonagpur Range at an elevation of 609 m. It <sup>drains</sup> contains a total area of 19333 sq.km. in which 13,950 sq.km. in Bihar, 2182 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-Khakai in Bihar and Orissa and Dolong in West Bengal.

The maximum and minimum levels observed as well the danger levels and highest flood levels at different Gauge sites of various river systems during the flood season of 2001 are given in Annexure IV (Sheet No. 1/30 to 30/30).

### **2. RAINFALL**

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 the last seventy five years, the dates 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 first week of June to the end of 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 & 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 & Sub-Himalayan Region,
- (ii) The Gangetic Plains,

### **2.1.1. Himalayan & Sub-Himalayan Region**

The Himalayan and Sub-Himalayan regions comprising of 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 the monsoon season. On the average, Darjeeling, Coochbehar and Jalpaiguri get 114, 112 and 110 rainy days respectively in a year. The monsoon generally follows a northerly track to ultimately break up against Eastern Himalayan causing very heavy rainfall and thereafter trough of low pressure under break monsoon conditions. It then shifts northwards to the Himalayan foot hills. It has been found that a precipitation to the tune of 200 to 300 mm in 2 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 Plain**

The gangetic plain which constitutes 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 of districts - Bankura, Birbhum, Murshidabad and Burdwan which receive an average rainfall – between 1140 mm and 1400 mm.

**Sector-II :** Comprising of districts – Nadia, Hooghly, Western portion of North & South Dinajpur, Midnapore and North 24-Parganas having an average annual rainfall between 1400 mm. and 1650 mm.

**Sector-III :** Comprising of districts – Howrah, Eastern portion of North and South Dinajpur, South 24-Parganas and Midnapore 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 six districts + Bankura (+18%), Birbhum(+24%), Midnapore(+3%), Nadia(+10%), North 24-Parganas(+6%), Purulia(+4%) experienced an excess rainfall above the normal during the monsoon period (June to October) and the districts – Burdwan(-14%), Hooghly (-12%), Howrah(-13%), Murshidabad(-10%), South 24-Parganas(-2%) experienced less rainfall than the normal. But this region as a whole had experienced just normal rainfall ~~in~~ <sup>on</sup> average. In Sub-Himalayan West Bengal the districts Darjeeling(+4%), Jalpaiguri(+6%), North & South Dinajpur(+40%) had an excess rainfall over the normal & the district Coochbehar(-23%) had a less rainfall ~~than~~ the normal where as the district Maldah had just the normal average rainfall during the monsoon period. And the region as a whole had experienced a slightly excess(+2%) average rainfall above the normal.

The rainfall data for the above districts as collected from Indian Meteorological Department, Alipore, Kolkata is shown in Annexure-I (Sheet No. 1/14 to 14/14).

During the monsoon period, the river Sub-Basins within the state West Bengal, experience an average rainfall ranging from 38% to 110% of annual average rainfall of the sub-basis.

The rainfall data of different rivers (Sub-basin wise) is shown in Annexure-V (Sheet ½ to 2/2).

**REPORT ON FLOOD DURING – 2001 OF WEST BENGAL**

Flood is a recurring problem of this state. The state has experienced flood almost in 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. The state is flood prone. The flood affected areas as noted from 1960 to 2001 may give a picture of recurrence of high flood in the state.

*is almost a regular feature in  
will deposit silt load  
42-43% geographical area of the state is flood prone.*

<u>Flood affected area(Sq.km.)</u>	<u>Years of occurrence</u>	<u>Total no. of years.</u>
Below 500	1985,89,92,94,97 & 2001	6
Between 500-2000	1962,63,64,65,66,72,75 & 96	8
Between 2000-5000	1960,61,67,69,70,74,76,80,81&82	10
Between 5000-10,000	1973,77,93,95 & 98	5
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. 2001 may be considered an year of non much appreciable flooding. Till the month of May the state experienced no much rainfall. The South West monsoon entered the state in the early first week of June. The rainfall over the state as a whole is slightly above/below the normal average rainfall.

Most of the rivers of the state were running with flow of normal intensity. Among the North Bengal rivers Jaldhaka, Sui, Nagar & Atrai were running above danger levels on few occasions. But the rivers Mahananda, Tangon, Fulhar & Punarbhaba were running above danger level for a considerable period. And in South Bengal also, most of the rivers were running with normal intensity excepting rivers Rupnarayan and Silabati flowing over danger level on a few occasions but the rivers Damodar, Kangsabati and Ganga were running above danger levels for a considerable period.

There were no severe damages to the engineering structures or any devastating inundation excepting the following reports received –

- (i) Approximately 60.50 sq.km. of area inundated in P.S. Itahar, Raiganj, Karandighi & Goalpokar in the North Dinajpur district.
- (ii) Bank erosion of river Ganga was active within the reach from Janutola to Panchanandapur in P.S. Kaliachak in the Maldah district. A length of 560 m. of spur no. 20 had been engulfed.
- (iii) Bank erosions were also active within the reach of Brahmangram to Dhulian in P.S. Farakka in the district of Murshidabad.

Besides the above, there may be minor damages, slips etc. but without much threat to the public property.

Districtwise damages, slips etc. are shown in Annexure-VI (Sheet 1/1).

### **CONCLUSION**

The flood management of the state is a vast problem. There is a growing awareness of people on the issue. But the solution that is projected like construction of dams, construction of more and more of flood embankments, protection of existing embankments are not only time consuming requiring major outlay but also difficult to implement. Very recently there is a growing demand that all the river channels of the state should be desilted. But this is an improbable proposition for any deltaic zones. The rivers of the state originate outside the state and are mostly seasonal. The silt is being deposited over the years, in some cases more than hundred years. The problem of flood cannot be tackled by the State Irrigation Department alone. It needs close liaison with different government organization and awarness of the people which is increasing day by day upto the expectations.

*Maitoh*

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
JANUARY 2001.**

Period from 01.01.2001 to 31.01.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	0.0	14.60	(-) 100
2.	Birbhum	0.0	11.20	(-) 100
3.	Burdwan	0.0	13.40	(-) 100
4.	Hooghly	0.0	14.80	(-) 100
5.	Howrah	0.0	15.70	(-) 100
6.	Midnapore	0.3	12.80	(-) 98
7.	Murshidabad	0.0	14.10	(-) 100
8.	Nadia	0.0	12.10	(-) 100
9.	North 24-Parganas	0.0	13.90	(-) 100
10.	Purulia	0.0	15.20	(-) 100
11.	South 24-Parganas	1.0	13.40	(-) 92
<b>Total :</b>		1.3	<b>151.20</b>	
<b>Average :</b>		0.1	<b>13.70</b>	<b>( - ) 99</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	0.3	8.40	(-) 96
13.	Darjeeling	1.9	16.40	(-) 88
14.	Jalpaiguri	1.0	5.80	(-) 83
15.	Maldah	0.7	11.50	(-) 94
16.	North & South Dinajpur	4.0	8.90	(-) 55
<b>Total :</b>		7.9	<b>51.00</b>	
<b>Average :</b>		1.6	<b>10.20</b>	<b>( - ) 84</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF FEBRUARY 2001.**

Period from 01.02.2001 to 28.02.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in % )
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	0.0	23.1	(-) 100
2.	Birbhum	0.1	16.7	(-) 99
3.	Burdwan	0.0	21.8	(-) 100
4.	Hooghly	0.5	17.8	(-) 97
5.	Howrah	7.2	34.3	(-) 79
6.	Midnapore	1.2	29.4	(-) 96
7.	Murshidabad	0.0	16.3	(-) 100
8.	Nadia	0.0	24.9	(-) 100
9.	North 24-Parganas	12.5	18.8	(-) 34
10.	Purulia	0.0	23.5	(-) 100
11.	South 24-Parganas	4.2	24.4	(-) 83

Total :	25.7	251.0	
Average :	2.3	22.8	( - ) 90

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	0.0	17.9	(-) 100
13.	Darjeeling	14.7	15.5	(-) 5
14.	Jalpaiguri	2.6	15.1	(-) 83
15.	Maldah	0.0	18.0	(-) 100
16.	North & South Dinajpur	0.0	12.3	(-) 100

Total :	17.3	78.8	
Average :	3.5	15.8	( - ) 78

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
MARCH 2001.**

Period from 01.03.2001 to 31.03.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	56.7	24.7	(+) 130
2.	Birbhum	33.5	16.5	(+) 103
3.	Burdwan	67.9	24.7	(+) 175
4.	Hooghly	34.9	27.1	(+) 29
5.	Howrah	46.0	34.8	(+) 32
6.	Midnapore	51.7	32.1	(+) 61
7.	Murshidabad	2.8	21.6	(-) 87
8.	Nadia	22.0	32.3	(-) 32
9.	North 24-Parganas	26.1	32.3	(-) 19
10.	Purulia	32.0	20.6	(+) 55
11.	South 24-Parganas	31.5	32.3	(-) 2

Total :	405.1	299.0
Average :	36.8	27.2

(+ ) 35

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	33.6	33.5	0
13.	Darjeeling	10.2	39.7	(-) 74
14.	Jalpaiguri	43.1	38.4	(+) 12
15.	Maldah	0.8	17.6	(-) 95
16.	North & South Dinajpur	0.0	18.4	(-) 100

Total :	87.7	147.6
Average :	17.5	29.5

( - ) 41

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
APRIL 2001.**

Period from 01.04.2001 to 30.04.2001.

SL.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure ( in % )
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	42.5	35.4	(+) 20
2.	Birbhum	71.1	29.5	(+) 141
3.	Burdwan	90.2	40.7	(+) 122
4.	Hooghly	65.3	51.6	(+) 27
5.	Howrah	17.6	53.6	(-) 67
6.	Midnapore	71.2	37.6	(+) 89
7.	Murshidabad	37.0	42.4	(-) 13
8.	Nadia	38.1	62.2	(-) 39
9.	North 24-Parganas	40.9	60.6	(-) 32
10.	Purulia	16.0	25.9	(-) 38
11.	South 24-Parganas	49.8	46.2	(+) 8
<b>Total :</b>		<b>539.7</b>	<b>485.7</b>	
<b>Average :</b>		<b>49.1</b>	<b>44.1</b>	<b>( + ) 11</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	248.4	120.2	(+) 107
13.	Darjeeling	73.2	79.4	(-) 8
14.	Jalpaiguri	61.1	130.0	(-) 53
15.	Maldah	4.0	36.3	(-) 89
16.	North & South Dinajpur	0.0	43.1	(-) 100
<b>Total :</b>		<b>386.7</b>		
<b>Average :</b>		<b>84.5</b>	<b>409.0</b>	<b>( - ) 6</b>
		<b>77.3</b>	<b>81.8</b>	<b>( - ) 3</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
JUNE 2001.**

Period from 01.06.2001 to 30.06.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in % )
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	364.8	208.1	(+) 75
2.	Birbhum	375.3	203.1	(+) 85
3.	Burdwan	315.1	232.1	(+) 36
4.	Hooghly	390.6	259.4	(+) 51
5.	Howrah	375.7	303.0	(+) 24
6.	Midnapore	359.0	248.4	(+) 45
7.	Murshidabad	296.2	237.0	(+) 25
8.	Nadia	426.1	249.3	(+) 71
9.	North 24-Parganas	363.6	271.4	(+) 34
10.	Purulia	403.7	200.2	(+) 102
11.	South 24-Parganas	417.0	290.8	(+) 43
<b>Total :</b>		4087.1	2702.8	
<b>Average :</b>		371.6	245.7	(+) 51

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	564.0	717.4	(-) 21
13.	Darjeeling	616.4	527.0	(+) 17
14.	Jalpaiguri	628.8	613.5	(+) 2
15.	Maldah	366.8	269.4	(+) 36
16.	North & South Dinajpur	223.6	286.1	(-) 22
<b>Total :</b>		2399.6	2413.4	
<b>Average :</b>		479.9	482.7	0

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM L.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
JULY 2001.**

Period from 01.07.2001 to 31.07.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure ( in % )
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	371.9	307.9	(+) 21
2.	Birbhum	224.6	257.7	(-) 13
3.	Burdwan	136.1	299.9	(-) 55
4.	Hooghly	186.1	310.0	(-) 40
5.	Howrah	262.6	360.9	(-) 27
6.	Midnapore	328.3	305.0	(+) 8
7.	Murshidabad	188.0	302.0	(-) 38
8.	Nadia	236.6	267.4	(-) 12
9.	North 24-Parganas	338.5	319.6	(+) 6
10.	Purulia	285.6	338.0	(-) 15
11.	South 24-Parganas	316.0	346.2	(-) 9
<b>Total</b>		<b>2874.3</b>	<b>3414.6</b>	
<b>Average</b>		<b>261.3</b>	<b>310.4</b>	<b>( - ) 16</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	283.8	667.5	(-) 57
13.	Darjeeling	520.2	738.7	(-) 30
14.	Jalpaiguri	563.7	813.6	(-) 31
15.	Maldah	215.8	329.0	(-) 34
16.	North & South Dinajpur	152.1	335.0	(-) 55
<b>Total</b>		<b>1735.6</b>	<b>2883.8</b>	
<b>Average</b>		<b>347.1</b>	<b>576.8</b>	<b>( - ) 40</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
AUGUST 2001.**

Period from 01.08.2001 to 31.08.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	297.5	307.3	(-) 3
2.	Birbhum	172.3	288.9	(-) 40
3.	Burdwan	230.7	294.1	(-) 22
4.	Hooghly	167.5	300.5	(-) 44
5.	Howrah	165.6	356.4	(-) 54
6.	Midnapore	252.5	299.3	(-) 16
7.	Murshidabad	199.6	280.4	(-) 29
8.	Nadia	161.6	260.5	(-) 38
9.	North 24-Parganas	233.0	300.2	(-) 22
10.	Purulia	308.9	323.2	(-) 4
11.	South 24-Parganas	237.7	349.8	(-) 32
<b>Total :</b>		<b>2426.9</b>	<b>3360.6</b>	
<b>Average :</b>		<b>220.6</b>	<b>305.5</b>	<b>( - ) 28</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	373.2	534.3	(-) 3
13.	Darjeeling	537.2	606.5	(-) 11
14.	Jalpaiguri	641.2	570.5	(+) 12
15.	Maldah	181.3	329.8	(-) 45
16.	North & South Dinajpur	406.8	292.3	(+) 39
<b>Total :</b>		<b>2139.7</b>	<b>2333.4</b>	
<b>Average :</b>		<b>427.9</b>	<b>466.7</b>	<b>( - ) 8</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF SEPTEMBER 2001.**

**Period from 01.09.2001 to 30.09.2001.**

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in % )
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	137.30	191.60	(-) 28
2.	Birbhum	267.40	180.00	(+) 49
3.	Burdwan	170.60	214.30	(-) 20
4.	Hooghly	224.50	254.00	(-) 12
5.	Howrah	187.60	208.00	(-) 10
6.	Midnapore	178.70	256.50	(-) 30
7.	Murshidabad	165.70	216.40	(-) 23
8.	Nadia	208.00	210.70	(-) 1
9.	North 24-Parganas	219.30	261.20	(-) 16
10.	Purulia	163.40	248.00	(-) 34
11.	South 24-Parganas	207.20	258.60	(-) 20

<b>Total :</b>	<b>2129.70</b>	<b>2499.30</b>	
<b>Average :</b>	<b>193.60</b>	<b>227.20</b>	<b>( - ) 15</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	398.00	483.60	(-) 18
13.	Darjeeling	527.60	405.20	(+) 30
14.	Jalpaiguri	557.90	466.80	(+) 20
15.	Maldah	205.30	279.30	(-) 26
16.	North & South Dinajpur	643.30	243.20	(+) 165

<b>Total :</b>	<b>2332.10</b>	<b>1878.10</b>	
<b>Average :</b>	<b>466.40</b>	<b>375.60</b>	<b>(+) 24</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF OCTOBER 2001.**

Period from 01.10.2001 to 31.10.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure ( in % )
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	121.50	85.00	(+) 43
2.	Birbhum	240.30	100.80	(+) 138
3.	Burdwan	134.50	103.80	(+) 30
4.	Hooghly	120.20	118.30	(+) 2
5.	Howrah	182.90	127.80	(+) 43
6.	Midnapore	173.90	142.80	(+) 22
7.	Murshidabad	197.20	130.40	(+) 51
8.	Nadia	172.20	107.60	(+) 60
9.	North 24-Parganas	198.70	127.90	(+) 55
10.	Purulia	80.10	85.10	(-) 6
11.	South 24-Parganas	173.60	135.10	(+) 28
<b>Total :</b>		<b>1795.10</b>	<b>1264.60</b>	
<b>Average :</b>		<b>163.20</b>	<b>115.00</b>	<b>( + ) 42</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	348.40	165.70	(+) 110
13.	Darjeeling	298.10	129.30	(+) 131
14.	Jalpaiguri	406.40	170.90	(+) 138
15.	Maldah	353.30	111.20	(+) 218
16.	North & South Dinajpur	356.20	117.40	(+) 203
<b>Total :</b>		<b>1762.40</b>	<b>694.50</b>	
<b>Average :</b>		<b>352.50</b>	<b>138.90</b>	<b>( + ) 154</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
NOVEMBER 2001.**

Period from 01.11.2001 to 30.11.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	5.00	13.20	(-) 62
2.	Birbhum	0.40	12.20	(-) 97
3.	Burdwan	1.10	15.00	(-) 93
4.	Hooghly	4.80	21.70	(-) 78
5.	Howrah	9.10	24.60	(-) 63
6.	Midnapore	13.60	34.30	(-) 60
7.	Murshidabad	8.70	12.60	(-) 31
8.	Nadia	2.10	16.90	(-) 88
9.	North 24-Parganas	24.80	16.80	(+) 48
10.	Purulia	0.00	13.90	(-) 100
11.	South 24-Parganas	17.60	25.00	(-) 30

<b>Total :</b>	<b>87.20</b>	<b>206.20</b>	
<b>Average :</b>	<b>7.90</b>	<b>18.70</b>	<b>(-) 58</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	9.60	9.90	(-) 3
13.	Darjeeling	60.20	13.10	(+) 360
14.	Jalpaiguri	32.30	16.30	(+) 98
15.	Maldah	0.00	12.50	(-) 100
16.	North & South Dinajpur	30.60	12.50	(+) 145

<b>Total :</b>	<b>132.70</b>	<b>64.30</b>	
<b>Average :</b>	<b>26.50</b>	<b>12.90</b>	<b>(+) 105</b>

**MONTHLY DISTRICTWISE ACTUAL & NORMAL RAINFALL  
RECEIVED FROM I.M.D. ALIPORE, KOLKATA ALONG WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE MONTH OF  
DECEMBER 2001.**

Period from 01.12.2001 to 31.12.2001.

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura			
2.	Birbhum			
3.	Burdwan			
4.	Hooghly			
5.	Howrah			
6.	Midnapore			
7.	Murshidabad			
8.	Nadia			
9.	North 24-Parganas			
10.	Purulia			
11.	South 24-Parganas			

Total :  
Average :

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar			
13.	Darjeeling			
14.	Jalpaiguri			
15.	Maldah			
16.	North & South Dinajpur			

Total :  
Average :

**DISTRICTWISE ACTUAL & NORMAL RAINFALL DURING  
MONSOON PERIOD ALONG WITH PERCENT DEPARTURE FROM  
NORMAL FOR THE YEAR 2001.**

**PERIOD FROM JUNE 2001 TO OCTOBER 2001**

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

**Sub-Division : Gangetic West Bengal.**

1.	Bankura	1293.0	1099.9	(+) 18
2.	Birbhum	1279.9	1030.5	(+) 24
3.	Burdwan	987.0	1144.2	(-) 14
4.	Hooghly	1088.9	1242.2	(-) 12
5.	Howrah	1174.4	1356.1	(-) 13
6.	Midnapore	1292.4	1252.0	(+) 3
7.	Murshidabad	1046.7	1166.2	(-) 10
8.	Nadia	1204.5	1095.5	(+) 10
9.	North 24-Parganas	1353.1	1298.3	(+) 6
10.	Purulia	1241.7	1194.5	(+) 4
11.	South 24-Parganas	1351.50	1380.5	(-) 2
<b>Total</b>		<b>13313.10</b>	<b>13241.9</b>	
<b>Average</b>		<b>1210.3</b>	<b>1203.8</b>	<b>0.0</b>

**Sub-Division : Sub-Himalayan West Bengal**

12.	Coochbehar	1967.4	2568.5	(-) 23
13.	Darjeeling	2499.5	2406.7	(+) 4
14.	Jalpaiguri	2798.0	2635.3	(+) 6
15.	Maldah	1322.5	1318.7	0
16.	North & South Dinajpur	1782.0	1274.0	(+) 40
<b>Total</b>		<b>10369.4</b>	<b>10203.2</b>	
<b>Average</b>		<b>2073.9</b>	<b>2040.6</b>	<b>(+) 2</b>

**YEARLY DISTRICTWISE ACTUAL & NORMAL RAINFALL WITH  
PERCENT DEPARTURE FROM NORMAL FOR THE YEAR 2001.**

**PERIOD FROM JANUARY 2001 TO DECEMBER 2001**

Sl.No.	Name of District	Actual (in mm)	Normal (in mm)	Departure (in %)
1	2	3	4	5

Sub-Division : Gangetic West Bengal.

1.	Bankura			
2.	Birbhum			
3.	Burdwan			
4.	Hooghly			
5.	Howrah			
6.	Midnapore			
7.	Murshidabad			
8.	Nadia			
9.	North 24-Parganas			
10.	Purulia			
11.	South 24-Parganas			

Total :  
 Average :

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Sub-Division : Sub-Himalayan West Bengal

12.	Coochbehar			
13.	Darjeeling			
14.	Jalpaiguri			
15.	Maldah			
16.	North & South Dinajpur			

Total :  
 Average :

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**IMPORTANT RESERVOIR LEVELS & OUTFLOW DATA DURING THE FLOOD SEASON OF 2001.**

Name of Reservoir : Maithon

Conservation Level : 146.31 M ( 480.00 ft.)

Dead Storage Level : 132.59 M ( 435.00 ft.)

Date	Time (in hours)	Reservoir (in M)	Outflow (in Cumecs)	Remarks
1	2	3	4	5
12.6.2001	06.00	139.05	13.06	
20.6.2001	06.00	140.99	47.01	
26.6.2001	06.00	142.65	129.12	
04.7.2001	06.00	142.16	159.92	
05.7.2001	06.00	142.30	185.63	
18.7.2001	06.00	142.22	181.81	
20.7.2001	06.00	142.74	176.36	
01.8.2001	06.00	142.30	187.25	
02.8.2001	06.00	142.41	188.29	
09.8.2001	06.00	141.47	106.42	
22.8.2001	06.00	141.58	31.38	
29.8.2001	06.00	142.64	33.93	
04.9.2001	06.00	144.43	174.86	
11.9.2001	06.00	144.42	180.18	
19.9.2001	06.00	146.30	64.15	
21.9.2001	06.00	146.68	82.33	Above Conservation Level
03.10.2001	06.00	146.38	40.99	Above Conservation Level
04.10.2001	06.00	146.68	45.28	Above Conservation Level
05.10.2001	06.00	147.17	40.53	Above Conservation Level
06.10.2001	06.00	147.82	64.38	Above Conservation Level
07.10.2001	06.00	147.91	84.30	Above Conservation Level
08.10.2001	06.00	148.00	81.29	Above Conservation Level

( 2 )

1	2	3	4	5
09.10.2001	06.00	148.11	86.04	Above Conservation Level
10.10.2001	06.00	148.41	107.12	Above Conservation Level
11.10.2001	06.00	148.57	182.85	Above Conservation Level
12.10.2001	06.00	148.89	214.35	Above Conservation Level
13.10.2001	06.00	148.68	195.01	Above Conservation Level
14.10.2001	06.00	148.66	98.89	Above Conservation level
15.10.2001	06.00	148.66	46.32	Above Conservation Level
16.10.2001	06.00	148.68	24.67	Above Conservation Level
20.10.2001	06.00	148.82	61.61	Above Conservation Level

**IMPORTANT RESERVOIR LEVELS & OUTFLOW DATA DURING  
THE FLOOD SEASON OF 2001**

Name of Reservoir : Panchet

Conservation Level : 124.97 M ( 410.00 ft.)

Dead Storage Level : 119.48 M ( 392.00 ft.)

Date	Time (in hours)	Reservoir ( in M)	Outflow ( in Cumecs)	Remarks
1	2	3	4	5
11.6.2001	06.00	123.23	42.73	
20.6.2001	06.00	124.18	90.56	
26.6.2001	06.00	125.61	256.73	Above Conservation Level
28.6.2001	06.00	126.02	1000.28	Above Conservation Level
29.6.2001	06.00	125.79	878.81	Above Conservation Level
30.6.2001	06.00	125.62	828.09	Above Conservation Level
01.7.2001	06.00	125.44	853.45	Above Conservation Level
02.7.2001	06.00	125.03	664.00	Above Conservation Level
03.7.2001	06.00	125.02	380.52	Above Conservation Level
05.7.2001	06.00	124.77	345.43	
17.7.2001	06.00	125.02	258.23	Above Conservation Level
18.7.2001	06.00	125.98	520.87	Above Conservation Level
19.7.2001	06.00	126.06	851.25	Above Conservation Level
20.7.2001	06.00	125.77	861.55	Above Conservation Level
21.7.2001	06.00	125.32	821.72	Above Conservation Level
22.7.2001	06.00	125.01	924.89	Above Conservation Level
30.7.2001	06.00	125.05	431.12	Above Conservation Level
02.8.2001	06.00	124.16	706.15	
09.8.2001	06.00	123.22	148.11	
22.8.2001	06.00	124.18	105.96	
29.8.2001	06.00	125.67	203.34	Above Conservation Level
30.8.2001	06.00	125.69	262.87	Above Conservation Level
31.8.2001	06.00	125.62	357.47	Above Conservation Level
01.9.2001	06.00	127.03	448.61	Above Conservation Level
02.9.2001	06.00	127.71	1195.87	Above Conservation Level
03.9.2001	06.00	127.33	1421.21	Above Conservation Level
04.9.2001	06.00	126.57	1151.52	Above Conservation Level
05.9.2001	06.00	125.96	844.30	Above Conservation Level
06.9.2001	06.00	127.76	524.11	Above Conservation Level

Annexure-II,  
Sheet-4/7

1	2	3	4	5
07.9.2001	06.00	125.81	384.34	Above Conservation Level
08.9.2001	06.00	125.98	410.86	Above Conservation Level
09.9.2001	06.00	126.22	426.61	Above Conservation Level
10.9.2001	06.00	126.26	418.62	Above Conservation Level
11.9.2001	06.00	126.28	425.22	Above Conservation Level
12.9.2001	06.00	126.24	422.79	Above Conservation Level
13.9.2001	06.00	126.07	424.41	Above Conservation Level
14.9.2001	06.00	125.93	566.15	Above Conservation Level
15.9.2001	06.00	125.43	707.89	Above Conservation Level
16.9.2001	06.00	125.03	548.78	Above Conservation Level
18.9.2001	06.00	125.34	381.33	Above Conservation Level
19.9.2001	06.00	125.50	418.27	Above Conservation Level
20.9.2001	06.00	125.41	422.67	Above Conservation Level
21.9.2001	06.00	125.33	324.36	Above Conservation Level
22.9.2001	06.00	125.34	214.11	Above Conservation Level
23.9.2001	06.00	125.36	163.16	Above Conservation Level
24.9.2001	06.00	125.28	157.26	Above Conservation Level
26.9.2001	06.00	125.14	155.40	Above Conservation Level
27.9.2001	06.00	125.01	142.78	Above Conservation Level
07.10.2001	06.00	125.19	172.08	Above Conservation Level
08.10.2001	06.00	125.66	169.42	Above Conservation Level
09.10.2001	06.00	125.92	169.42	Above Conservation Level
10.10.2001	06.00	126.00	166.40	Above Conservation Level
11.10.2001	06.00	126.24	165.25	Above Conservation Level
12.10.2001	06.00	126.30	165.94	Above Conservation Level
13.10.2001	06.00	126.34	165.36	Above Conservation Level
14.10.2001	06.00	126.26	166.17	Above Conservation Level
15.10.2001	06.00	126.20	164.90	Above Conservation Level
16.10.2001	06.00	126.25	97.39	Above Conservation Level
17.10.2001	06.00	126.38	107.93	Above Conservation Level
18.10.2001	06.00	126.42	146.72	Above Conservation Level
19.10.2001	06.00	126.48	143.13	Above Conservation Level
20.10.2001	06.00	126.42	140.81	Above Conservation Level

**IMPORTANT RESERVOIR LEVELS & OUTFLOW DATA DURING  
THE FLOOD SEASON OF 2001**

Name of Reservoir : Tenughat

Conservation Level : 263.66 M ( 865.00 ft.)

Dead Storage Level : 249.02 M ( 817.00 ft.)

Date	Time (in Hours)	Reservoir Level (in M)	Outflow (in cumecs)	Remarks
1	2	3	4	5
12.6.2001	06.00	259.31	4.84	
20.6.2001	06.00	257.74	4.62	
27.6.2001	06.00	258.93	1117.03	
28.6.2001	06.00	258.59	886.29	
11.7.2001	06.00	258.29	113.09	
12.7.2001	06.00	259.25	630.78	
22.7.2001	06.00	258.71	379.69	
28.7.2001	06.00	258.68	595.51	
03.8.2001	06.00	258.50	222.08	
12.8.2001	06.00	258.56	166.49	
20.8.2001	06.00	259.42	148.54	
26.8.2001	06.00	259.63	4.80	
01.9.2001	06.00	260.34	1536.59	
10.9.2001	06.00	258.85	210.17	
14.9.2001	06.00	258.87	187.18	
20.9.2001	06.00	258.73	205.14	
03.10.2001	06.00	259.20	4.77	
05.10.2001	06.00	259.42	121.69	
13.10.2001	06.00	259.42	4.80	
14.10.2001	06.00	259.42	69.86	
20.10.2001	06.00	258.90	4.76	

**IMPORTANT RESERVOIR LEVELS & OUTFLOW DATA DURING  
THE FLOOD SEASON OF 2001**

Name of Reservoir : Kangsabati

Conservation Level : 134.11 M ( 440.00 ft.)

Dead Storage Level : 120.40 M ( 395.00 ft.)

Date	Time (in Hours)	Reservoir Level (in M)	Outflow (in Cumecs)	Remarks
1	2	3	4	5
12.6.2001	06.00	124.45	-	
13.6.2001	06.00	124.45	-	
20.6.2001	06.00	125.36	-	
27.6.2001	06.00	127.05	-	
04.7.2001	06.00	128.78	-	
11.7.2001	06.00	129.66	-	
14.7.2001	06.00	131.83	47.86	
21.7.2001	06.00	131.63	310.44	
26.7.2001	06.00	131.52	184.53	
03.8.2001	06.00	131.11	188.96	
04.8.2001	06.00	131.11	186.18	
15.8.2001	06.00	131.03	-	
20.8.2001	06.00	131.32	-	
23.8.2001	06.00	130.97	209.77	
05.9.2001	06.00	132.76	354.70	
11.9.2001	06.00	132.39	119.81	
13.9.2001	06.00	132.43	-	
23.9.2001	06.00	132.40	-	
24.9.2001	06.00	132.40	-	
28.9.2001	06.00	131.78	229.43	
05.10.2001	06.00	131.59	230.54	
17.10.2001	06.00	129.78	-	
20.10.2001	06.00	129.94	-	

**IMPORTANT RESERVOIR LEVELS & OUTFLOW DATA DURING  
THE FLOOD SEASON OF 2001**

Name of Reservoir : Messanjore

Conservation Level : 121.34 M ( 398.00 ft.)

Dead Storage Level : 106.37 M ( 349.00 ft.)

Date	Time (in Hours)	Reservoir Level ( in M )	Outflow ( in Cumecs)	Remarks
1	2	3	4	5
10.6.2001	06.00	108.372	23.05	
20.6.2001	06.00	109.911	26.93	
27.6.2001	06.00	112.669	-	
04.7.2001	06.00	113.599	-	
11.7.2001	06.00	113.751	-	
18.7.2001	06.00	114.010	-	
25.7.2001	06.00	114.315	-	
01.8.2001	06.00	114.818	10.12	
04.8.2001	06.00	115.077	17.20	
09.8.2001	06.00	114.422	90.66	
18.8.2001	06.00	114.346	-	
19.8.2001	06.00	114.346	-	
20.8.2001	06.00	114.346	-	
23.8.2001	06.00	114.315	-	
01.9.2001	06.00	113.629	9.59	
12.9.2001	06.00	115.794	-	
19.9.2001	06.00	117.226	-	
25.9.2001	06.00	117.683	-	
27.9.2001	06.00	117.455	125.48	
08.10.2001	06.00	118.948	124.28	
11.10.2001	06.00	118.938	25.64	
20.10.2001	06.00	118.979	-	

**IMPORTANT BARRAGE LEVELS & DISCHARGE DATA DURING  
THE FLOOD SEASON OF 2001**

Name of Barrage : Tilpara

Date	Time (in Hours)	Barrage Level ( in M )	Discharge ( in Cumecs)	Remarks
1	2	3	4	5
13.6.2001	06.00	59.436	-	
20.6.2001	06.00	59.436	-	
27.6.2001	06.00	59.436	-	
04.7.2001	06.00	59.436	-	
11.7.2001	06.00	59.436	-	
18.7.2001	06.00	61.143	-	
22.7.2001	06.00	62.789	19.82	
01.8.2001	06.00	62.606	84.96	
08.8.2001	06.00	62.484	90.63	
12.8.2001	06.00	62.423	19.82	
18.8.2001	06.00	62.362	11.33	
26.8.2001	06.00	62.667	118.95	
30.8.2001	06.00	62.789	325.79	
03.9.2001	06.00	62.362	104.78	
07.9.2001	06.00	62.545	53.81	
09.9.2001	06.00	62.545	145.45	
17.9.2001	06.00	62.392	67.69	
21.9.2001	06.00	62.392	36.82	
27.9.2001	06.00	62.453	124.60	
30.9.2001	06.00	62.728	141.60	
01.10.2001	06.00	62.423	118.94	
04.10.2001	06.00	62.271	332.60	
10.10.2001	06.00	62.636	184.86	Maximum discharge 413.73
12.10.2001	06.00	62.667	124.60	cumecs (14611 cusecs) on
15.10.2001	06.00	62.453	62.30	18.10.2001 from 06.00 hours
20.10.2001	06.00	62.210	-	to 07.00 hours.

**IMPORTANT BARRAGE LEVELS & DISCHARGE DATA DURING  
THE FLOOD SEASON OF 2001**

Name of Barrage : Durgapur

Date	Time (in Hours)	Barrage Level ( in M )	Discharge ( in Cumecs)	Remarks
1	2	3	4	5
10.6.2001	06.00	64.465	60.89	
14.6.2001	06.00	64.404	1.42	
20.6.2001	06.00	64.465	121.78	
22.6.2001	06.00	64.465	304.44	
25.6.2001	06.00	64.465	274.00	
27.6.2001	06.00	64.404	669.77	
28.6.2001	06.00	64.313	1549.10	
29.6.2001	06.00	64.313	1299.89	
01.7.2001	06.00	64.313	1185.19	
02.7.2001	06.00	64.313	1117.22	
10.7.2001	06.00	64.313	487.10	
17.7.2001	06.00	64.465	304.44	
21.7.2001	06.00	64.252	925.36	
24.7.2001	06.00	64.252	986.24	
28.7.2001	06.00	64.252	489.23	
31.7.2001	06.00	64.252	1145.54	
01.8.2001	06.00	64.160	1149.74	
06.8.2001	06.00	64.160	511.69	
10.8.2001	06.00	64.465	60.89	
16.8.2001	06.00	64.465	121.78	
24.8.2001	06.00	64.252	1.42	
30.8.2001	06.00	64.465	220.19	
31.8.2001	06.00	64.465	344.44	
02.9.2001	06.00	64.160	1613.16	Maximum discharge 1852.20
03.9.2001	06.00	64.160	1716.22	Cumecs (65410 cusecs) on
11.9.2001	06.00	64.160	627.49	02.09.2001 at 15.30 hours.
16.9.2001	06.00	64.160	693.45	
23.9.2001	06.00	64.465	182.66	
30.9.2001	06.00	64.465	1.42	
05.10.2001	06.00	64.465	94.16	
07.10.2001	06.00	64.465	121.78	
12.10.2001	06.00	64.465	182.66	
16.10.2001	06.00	64.435	1.42	
19.10.2001	06.00	64.465	60.89	
20.10.2001	06.00	64.465	1.42	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Jaldhaka	N.H.31 Crossing	11.6.2001	79.23	10.00	
		19.6.2001	79.54	10.00	
	<b>WARNING LEVEL</b>	29.6.2001	79.40	10.00	
	<b>E.D.L. : 80.50 M</b>	07.7.2001	79.36	10.00	
	<b>D.L. : 80.00 M</b>	12.7.2001	79.54	10.00	
		22.7.2001	79.36	10.00	
		01.8.2001	80.07*	10.00	*Above D.L. & This Year's Highest Level.
		02.8.2001	79.80	10.00	
		15.8.2001	79.61	10.00	
		23.8.2001	79.86	10.00	
		04.9.2001	79.80	10.00	
		10.9.2001	79.47	10.00	
		14.9.2001	79.53	10.00	
		20.9.2001	79.73	10.00	
		28.9.2001	79.38	10.00	
		10.10.2001	79.68	10.00	
		11.10.2001	79.80	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Diana	Chengmari	3.7.2001	198.55	10.00	
		5.7.2001	198.50	10.00	
	<b>WARNING LEVEL</b>	15.7.2001	198.60	10.00	
	<b>E.D.L. : 201.40 M</b>	21.7.2001	198.75	10.00	
	<b>D.L. : 200.50 M</b>	01.8.2001	200.10	10.00	
		02.8.2001	199.05	10.00	
		12.8.2001	198.60	10.00	
		17.8.2001	198.75	10.00	
		23.8.2001	198.85	10.00	
		03.9.2001	198.65	10.00	
		12.9.2001	198.60	10.00	
		17.9.2001	198.50	10.00	
		20.9.2001	198.65	10.00	
		01.10.2001	198.35	10.00	
		05.10.2001	198.55	10.00	
		11.10.2001	198.60	10.00	
		19.10.2001	198.25	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks	
1	2	3	4	5	6	
Mansai	Mathabhanga	11.6.2001	47.33	10.00	<b>This Year's Highest Level 48.04 M on 24.8.2001</b>	
		14.6.2001	46.92	10.00		
<b>WARNING LEVEL</b>		21.6.2001	47.05	10.00	<b>E.D.L. : 48.70M</b>	
		30.6.2001	46.83	10.00		
<b>D.L. : 48.20M</b>		05.7.2001	46.71	10.00		
		18.7.2001	46.89	10.00		
		22.7.2001	47.09	10.00		
		30.7.2001	47.68	10.00		
		03.8.2001	47.92	10.00		
		13.8.2001	47.50	10.00		
		20.8.2001	47.40	10.00		
		24.8.2001	48.04	10.00		
		02.9.2001	47.64	10.00		
		06.9.2001	47.58	10.00		
		14.9.2001	47.48	10.00		
		22.9.2001	47.38	10.00		
		27.9.2001	47.20	10.00		
		7.10.2001	47.69	10.00		
		11.10.2001	47.65	10.00		
		18.10.2001	46.64	10.00		

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks	
1	2	3	4	5	6	
Mahananda	Hill Cart Road	07.7.2001	113.55	10.00	<b>This Year's Highest Level 114.60 M on 05.10.2001</b>	
		15.7.2001	114.225	10.00		
<b>WARNING LEVEL</b>		21.7.2001	113.65	10.00	<b>E.D.L. : 116.59 M</b>	
		25.7.2001	113.80	10.00		
<b>D.L. : 115.97 M</b>		31.7.2001	114.25	10.00		
		02.8.2001	114.00	10.00		
		13.8.2001	113.73	10.00		
		22.8.2001	113.80	10.00		
		28.8.2001	114.15	10.00		
		03.9.2001	114.20	10.00		
		06.9.2001	114.05	10.00		
		13.9.2001	114.35	10.00		
		21.9.2001	113.90	10.00		
		28.9.2001	113.95	10.00		
		05.10.2001	114.60	10.00		
		11.10.2001	114.15	10.00		
		19.10.2001	113.65	10.00		

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Mahananda	English Bazar	20.6.2001	16.41	10.00	<b>This Year's Highest Level 22.03 M on 18.9.2001</b>
		22.6.2001	17.02	10.00	
<b>WARNING LEVEL</b>		04.7.2001	17.03	10.00	
E.D.L.	: 23.50 M	11.7.2001	17.80	10.00	
D.L.	: 22.75 M	18.7.2001	18.60	10.00	
		24.7.2001	19.87	10.00	
		01.8.2001	20.40	10.00	
		06.8.2001	20.87	10.00	
		09.8.2001	20.62	10.00	
		16.8.2001	19.23	10.00	
		29.8.2001	21.01	10.00	
		01.9.2001	21.23	10.00	
		12.9.2001	21.62	10.00	
		18.9.2001	22.03	10.00	
		20.9.2001	22.00	10.00	
		21.9.2001	21.95	10.00	
		27.9.2001	20.98	10.00	
		10.10.2001	21.54	10.00	
		13.10.2001	21.96	10.00	
		18.10.2001	21.53	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Mahananda	Sonapurghat	16.7.2001	74.92	10.00	<b>This Year's highest Level 75.22 M on 24.8.2001</b>
		21.7.2001	74.275	10.00	
<b>WARNING LEVEL</b>		31.7.2001	74.23	10.00	
E.D.L.	: 76.38 M	02.8.2001	74.97	10.00	
D.L.	: 75.77 M	15.8.2001	74.72	10.00	
		22.8.2001	74.86	10.00	
		24.8.2001	75.22	10.00	
		02.9.2001	74.75	10.00	
		11.9.2001	74.89	10.00	
		13.9.2001	74.86	10.00	
		25.9.2001	73.75	10.00	
		03.10.2001	74.18	10.00	
		05.10.2001	74.85	10.00	
		11.10.2001	74.17	10.00	
		20.10.2001	74.25	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Mahananda	Jhawa	20.6.2001	28.20	10.00	This Year's Highest Level
		22.6.2001	29.48	10.00	32.12 M On 07.10.2001
<b>WARNING LEVEL</b>		01.7.2001	28.46	10.00	
E.D.L.	: 31.90 M	10.7.2001	28.59	10.00	
D.L.	: 31.40 M	18.7.2001	29.31	10.00	
		19.7.2001	29.20	10.00	
		01.8.2001	31.04	10.00	
		02.8.2001	31.09	10.00	
		09.8.2001	30.24	10.00	
		22.8.2001	29.91	10.00	
		25.8.2001	31.18	10.00	
		05.9.2001	31.30	10.00	
		08.9.2001	31.49*	10.00	*Above D.L
		15.9.2001	32.10*	10.00	*Above EDL
		20.9.2001	31.49*	10.00	*Above D.L
		21.9.2001	31.26	10.00	
		03.10.2001	31.25	10.00	
		07.10.2001	32.12*	10.00	*Above EDL
		11.10.2001	31.47*	10.00	*Above D.L

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Mahananda	Dangraghat	20.6.2001	33.79	10.00	This year's highest level 36.44 on 14.9.01
		22.6.2001	34.69	10.00	
<b>WARNING LEVEL</b>		30.6.2001	33.84	10.00	
E.D.L.	: 36.15 M	09.7.2001	34.08	10.00	
D.L.	: 35.65 M	17.7.2001	34.65	10.00	
		19.7.2001	34.41	10.00	
		01.8.2001	35.98*	10.00	*Above D.L
		02.8.2001	35.62	10.00	
		09.8.2001	34.63	10.00	
		22.8.2001	34.80	10.00	
		24.8.2001	35.90*	10.00	*Above D.L
		30.8.2001	35.89*	10.00	*Above D.L
		07.9.2001	35.94*	10.00	*Above D.L
		14.9.2001	36.44*	10.00	*Above EDL
		18.9.2001	35.95*	10.00	*Above D.L
		20.9.2001	35.43	10.00	
		21.9.2001	35.12	10.00	
		03.10.2001	35.47	10.00	
		07.10.2001	36.42*	10.00	*Above EDL
		11.10.2001	35.83*	10.00	*Above DL
		15.10.2001	34.88	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Sui	Pazol	18.7.2001	24.60	10.00	*Above D.L. Steady upto 18.9.2001 & this year's H/Level
		25.7.2001	24.96	10.00	
<b>WARNING LEVEL</b>		26.7.2001	24.96	10.00	
E.D.L. : 28.00 M		01.8.2001	24.06	10.00	
D.L. : 27.43 M		05.8.2001	24.76	10.00	
		13.8.2001	24.75	10.00	
		22.8.2001	24.76	10.00	
		28.8.2001	24.92	10.00	
		31.8.2001	24.79	10.00	
		12.9.2001	27.27	10.00	
		14.9.2001	27.47*	10.00	
		20.9.2001	27.38	10.00	
		27.9.2001	26.63	10.00	
		11.10.2001	27.36	10.00	
		18.10.2001	26.10	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Sui	Katchua	18.7.2001	21.50	10.00	Steady upto 21.8.2001
		20.7.2001	21.52	10.00	
<b>WARNING LEVEL</b>		01.8.2001	21.75	10.00	
E.D.L. : 26.98 M		06.8.2001	22.50	10.00	
D.L. : 25.49 M		09.8.2001	21.85	10.00	
		16.8.2001	21.50	10.00	
		29.8.2001	23.20	10.00	
		30.8.2001	23.27	10.00	
		12.9.2001	24.65	10.00	
		18.9.2001	25.19	10.00	
		20.9.2001	25.10	10.00	*Above D.L. & this year's highest level.
		27.9.2001	26.00*	10.00	
		10.10.2001	25.72*	10.00	
		11.10.2001	25.98*	10.00	
		18.10.2001	24.75	10.00	*Above D.L. *Above D.L.

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time (in Hours)	Remarks
1	2	3	4	5	6
Tangon	Radhikapur	11.7.2001	28.55	10.00	This year's Highest Level 33.10 M on 8.10.2001.
		18.7.2001	28.65	10.00	
<b>WARNING LEVEL</b>		20.7.2001	28.70	10.00	
E.D.L. : 34.05 M		01.8.2001	29.35	10.00	
D.L. : 33.45 M		07.8.2001	29.60	10.00	
		09.8.2001	29.55	10.00	
		16.8.2001	29.20	10.00	
		29.8.2001	31.50	10.00	
		30.8.2001	31.25	10.00	
		12.9.2001	32.80	10.00	
		13.9.2001	32.95	10.00	
		20.9.2001	31.20	10.00	
		27.9.2001	30.05	10.00	
		08.10.2001	33.10	10.00	
		11.10.2001	32.00	10.00	
		19.10.2001	30.55	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Tangon	Banshihari	22.6.2001	23.14	10.00	This year's highest level 26.45 M on 15.9.2001
		31.7.2001	22.60	10.00	
<b>WARNING LEVEL</b>		04.8.2001	22.90	10.00	
E.D.L. : 26.21 M		09.8.2001	21.85	10.00	
D.L. : 25.60 M		27.8.2001	25.75*	10.00	*Above D.L *Above D.L
		29.8.2001	25.74*	10.00	
		30.8.2001	25.64*	10.00	*Above D.L *Above D.L
		07.9.2001	25.65*	10.00	
		08.9.2001	25.87*	10.00	*Above D.L *Above D.L
		09.9.2001	26.03*	10.00	
		10.9.2001	26.22*	10.00	*Above D.L *Above EDL *Above EDL
		11.9.2001	26.35*	10.00	
		15.9.2001	26.45*	10.00	*Above EDL *Above D.L
		19.9.2001	25.96*	10.00	
		20.9.2001	25.55	10.00	*Above EDL
		01.10.2001	23.35	10.00	
		10.10.2001	26.43*	10.00	*Above EDL
		11.10.2001	26.31*	10.00	
		20.10.2001	23.25	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Nagore	Makdampur	18.7.2001	28.15	10.00	
		20.7.2001	28.30	10.00	
<b>WARNING LEVEL</b>		01.8.2001	28.65	10.00	
<b>E.D.L. : 31.86 M</b>		03.8.2001	29.05	10.00	
<b>D.L. : 31.54 M</b>		09.8.2001	29.05	10.00	
		20.8.2001	29.10	10.00	
		29.8.2001	30.87	10.00	
		30.8.2001	30.69	10.00	
		12.9.2001	31.27	10.00	
		13.9.2001	31.17	10.00	
		21.9.2001	30.41	10.00	
		28.9.2001	29.50	10.00	
		08.10.2001	31.55*	10.00	*Above D.L &
		11.10.2001	30.90	10.00	This year's
		18.10.2001	28.90	10.00	Highest
					Water level

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Kullick	Rly.Bridge	18.7.2001	26.20	10.00	
		20.7.2001	26.22	10.00	
<b>WARNING LEVEL</b>		01.8.2001	26.40	10.00	
<b>E.D.L. : 32.69 M</b>		05.8.2001	26.90	10.00	
<b>D.L. : 31.20 M</b>		09.8.2001	26.25	10.00	
		18.8.2001	26.18	10.00	
		23.8.2001	28.70	10.00	
		30.8.2001	28.62	10.00	
		12.9.2001	31.00	10.00	
		13.9.2001	30.95	10.00	
		20.9.2001	30.00	10.00	
		03.10.2001	27.78	10.00	
		08.10.2001	30.90	10.00	
		11.10.2001	30.48	10.00	
		18.10.2001	28.30	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time (in Hours)	Remarks
1	2	3	4	5	6
Dauk	Chopra	15.7.2001	66.97	10.00	
		21.7.2001	66.15	10.00	
<b>WARNING LEVEL</b>		31.7.2001	67.15	10.00	
E.D.L. : 70.07 M		02.8.2001	67.17	10.00	
D.L. : 69.46 M		11.8.2001	67.74	10.00	
		22.8.2001	67.55	10.00	
		24.8.2001	68.13	10.00	
		30.8.2001	67.15	10.00	
		11.9.2001	68.35	10.00	
		13.9.2001	68.75	10.00	
		25.9.2001	67.26	10.00	
		03.10.2001	68.31	10.00	
		05.10.2001	68.95	10.00	
		11.10.2001	67.60	10.00	This year's highest level 68.95 M on 05.10.2001

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Gamari	Itahar	18.7.2001	24.96	10.00	Steady upto 25.7.2001
		31.7.2001	25.04	10.00	
<b>WARNING LEVEL</b>		03.8.2001	25.10	10.00	
E.D.L. : 27.41 M		09.8.2001	24.92	10.00	
D.L. : 26.82 M		16.8.2001	24.80	10.00	Steady upto 20.8.2001
		29.8.2001	25.50	10.00	
		31.8.2001	25.54	10.00	
		12.9.2001	26.28	10.00	
		14.9.2001	26.40	10.00	This year's Highest Level 26.40 M on 14.9.2001
		20.9.2001	26.01	10.00	
		28.9.2001	24.80	10.00	
		07.10.2001	25.60	10.00	
		11.10.2001	25.65	10.00	
		18.10.2001	25.25	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Fulhar	Teljana(U/S)	31.7.2001	26.85	10.00	*Above D.L.
		02.8.2001	27.97*	10.00	
<b>WARNING LEVEL</b>		09.8.2001	27.15	10.00	
E.D.L. : 28.35 M		22.8.2001	26.38	10.00	
D.L. : 27.43 M		25.8.2001	27.89*	10.00	
		29.8.2001	27.89*	10.00	
		30.8.2001	28.00*	10.00	
		31.8.2001	28.06*	10.00	
		08.9.2001	28.10*	10.00	
		15.9.2001	28.29*	10.00	
		20.9.2001	27.52*	10.00	*Above D.L. *Above D.L. *Above D.L. *Above D.L. *Above D.L. *Above D.L. *At D.L.
		21.9.2001	27.31	10.00	
		03.10.2001	26.91	10.00	
		07.10.2001	28.03*	10.00	
		08.10.2001	28.30*	10.00	
		09.10.2001	28.16*	10.00	
		10.10.2001	27.86*	10.00	
		13.10.2001	27.43*	10.00	
		18.10.2001	26.37	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Fulhar	Teljana(C/S)	31.7.2001	24.05	10.00	This year's Highest Level 25.85 M on 8.10.2001
		03.8.2001	23.62	10.00	
<b>WARNING LEVEL</b>		09.8.2001	22.62	10.00	
E.D.L. : 27.13 M		17.8.2001	22.59	10.00	
D.L. : 26.51 M		29.8.2001	24.11	10.00	
		12.9.2001	24.73	10.00	
		15.9.2001	24.75	10.00	
		20.9.2001	24.75	10.00	
		03.10.2001	24.08	10.00	
		08.10.2001	25.85	10.00	
		13.10.2001	25.54	10.00	
		18.10.2001	25.05	10.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time (in Hours)	Remarks
1	2	3	4	5	6
Punarbhava	Gangarampur	22.6.2001	23.47	10.00	
		29.6.2001	22.50	10.00	
	<b>WARNING LEVEL</b>	31.7.2001	23.15	10.00	
E.D.L.	: 26.42 M	04.8.2001	23.93	10.00	
D.L.	: 25.82 M	29.8.2001	25.72	10.00	
		30.8.2001	25.75	10.00	
		12.9.2001	25.85*	10.00	*Above D.L.
		13.9.2001	26.00*	10.00	*Above D.L.
		14.9.2001	26.10*	10.00	*Above D.L.
		15.9.2001	25.93*	10.00	*Above D.L.
		17.9.2001	25.51	10.00	
		20.9.2001	24.52	10.00	
		22.9.2001	23.55	10.00	
		03.10.2001	23.25	10.00	
		06.10.2001	25.70	10.00	
		07.10.2001	26.15*	10.00	*Above D.L.
		08.10.2001	26.45*	10.00	*Above EDL & This years H/L
		09.10.2001	26.37*	10.00	*Above D.L.
		11.10.2001	24.90	10.00	
		20.10.2001	22.55	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Atrai	Balurghat	18.6.2001	18.44	10.00	
		22.6.2001	19.50	10.00	
	<b>WARNING LEVEL</b>	28.6.2001	18.38	10.00	
E.D.L.	: 23.75 M	01.8.2001	19.64	10.00	
D.L.	: 23.15 M	03.8.2001	19.72	10.00	
		25.8.2001	20.80	10.00	
		26.8.2001	21.80	10.00	
		30.8.2001	21.20	10.00	
		12.9.2001	21.94	10.00	
		13.9.2001	21.88	10.00	
		20.9.2001	20.12	10.00	
		03.10.2001	19.22	10.00	
		06.10.2001	21.68	10.00	
		07.10.2001	23.10	10.00	
		08.10.2001	23.32*	10.00	*Above D.L. & This year's Highest level
		09.10.2001	23.14	10.00	
		10.10.2001	21.88	10.00	
		11.10.2001	20.64	10.00	
		18.10.2001	18.82	10.00	

## **GAUGE LEVELS OF IMPORTANT RIVERS DURING FLOOD SEASON OF 2001**

North Bengal Rivers

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Teesta	Domohani	10.6.2001	85.08	10.00	
		19.6.2001	85.48	10.00	
<b><u>WARNING LEVEL</u></b>		22.6.2001	85.19	10.00	
E.D.L.	: 85.95 M	28.6.2001	85.26	10.00	
D.L.	: 85.60 M	05.7.2001	84.89	10.00	
		11.7.2001	84.89	10.00	
		17.7.2001	85.14	10.00	
		20.7.2001	85.20	10.00	
		29.7.2001	85.48	10.00	
		03.8.2001	85.36	10.00	
		15.8.2001	85.29	10.00	
		27.8.2001	85.52	10.00	
		04.9.2001	85.33	10.00	
		06.9.2001	85.31	10.00	
		13.9.2001	85.32	10.00	
		20.9.2001	85.28	10.00	
		01.10.2001	85.26	10.00	
		05.10.2001	85.39	10.00	
		11.10.2001	85.30	10.00	
		19.10.2001	84.85	10.00	
					This year's Highest level 85.52 M on 27.8.2001

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Churni</b>	<b>Hanskhali</b>	20.6.2001	4.80	06.00	
	<b>Warning Level</b>	23.6.2001	5.20	06.00	
<b>E.D.L.:</b>	8.14 M	28.6.2001	4.67	06.00	
<b>D.L.:</b>	7.53 M	08.7.2001	4.30	06.00	
		15.7.2001	4.00	06.00	
		24.7.2001	5.36	06.00	
		01.8.2001	5.67	06.00	
		07.8.2001	6.21	06.00	
		09.8.2001	6.13	06.00	
		21.8.2001	5.25	06.00	
		28.8.2001	5.74	06.00	
		03.9.2001	6.36	06.00	
		12.9.2001	6.84	06.00	
		18.9.2001	7.02	06.00	<b>This year's</b>
		20.9.2001	6.90	06.00	<b>Highest level</b>
		28.9.2001	5.47	06.00	<b>7.02 M on</b>
		10.10.2001	6.08	06.00	<b>18.9.2001</b>
		13.10.2001	6.19	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Bhagirathi</b>	<b>Jangipur</b>	20.6.2001	18.80	06.00	
	<b>Warning Level</b>	21.6.2001	18.72	06.00	
<b>E.D.L.:</b>	20.88 M	30.6.2001	18.60	06.00	
<b>D.L.:</b>	20.27 M	09.7.2001	18.57	06.00	<b>Steady upto</b>
		17.7.2001	18.65	06.00	<b>12.7.2001</b>
		19.7.2001	18.64	06.00	
		31.7.2001	18.83	06.00	
		04.8.2001	18.89	06.00	
		09.8.2001	18.71	06.00	
		22.8.2001	18.87	06.00	
		29.8.2001	19.28	06.00	
		30.8.2001	19.42	06.00	
		10.9.2001	19.45	06.00	<b>This year's</b>
		13.9.2001	19.11	06.00	<b>Highest level</b>
		22.9.2001	18.78	06.00	<b>19.45 M on</b>
		03.10.2001	18.62	06.00	<b>10.9.2001</b>
		09.10.2001	19.33	06.00	
		11.10.2001	19.12	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Bhagirathi	Berhampore	12.6.2001	15.33	06.00	
	<b>Warning Level</b>	21.6.2001	15.40	06.00	
E.D.L.:	17.83 M	28.6.2001	15.15	06.00	
D.L.:	17.22 M	11.7.2001	14.97	06.00	
		12.7.2001	14.96	06.00	
		20.7.2001	15.02	06.00	
		01.8.2001	15.21	06.00	
		07.8.2001	15.93	06.00	<b>This year's</b>
		09.8.2001	15.30	06.00	<b>Highest Level</b>
		22.8.2001	15.30	06.00	<b>15.93 M on</b>
		29.8.2001	15.65	06.00	<b>7.8.2001</b>
		04.9.2001	15.76	06.00	
		10.9.2001	15.88	06.00	
		13.9.2001	15.78	06.00	
		22.9.2001	15.37	06.00	
		27.9.2001	15.12	06.00	
		09.10.2001	15.84	06.00	
		18.10.2001	15.23	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Bhagirathi	Katwa	25.6.2001	11.60	06.00	
	<b>Warning Level</b>	28.6.2001	11.30	06.00	
E.D.L.:	14.32 M	10.7.2001	10.90	06.00	
D.L.:	13.71 M	16.7.2001	10.10	06.00	
		24.7.2001	10.26	06.00	
		01.8.2001	10.84	06.00	
		03.8.2001	11.23	06.00	
		09.8.2001	10.79	06.00	
		16.8.2001	10.32	06.00	
		29.8.2001	10.97	06.00	
		02.9.2001	11.57	06.00	
		11.9.2001	12.08	06.00	<b>This year's</b>
		16.9.2001	12.07	06.00	<b>Highest level</b>
		20.9.2001	12.04	06.00	<b>12.08 M on</b>
		27.9.2001	10.53	06.00	<b>11.9.2001</b>
		09.10.2001	11.72	06.00	
		12.10.2001	11.68	06.00	
		18.10.2001	10.81	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Bhagirathi	Kalna	20.6.2001	5.43	06.00	
	<b>Warning Level</b>	25.6.2001	5.76	06.00	
E.D.L.:	8.24 M	28.6.2001	5.49	06.00	
D.L.:	7.63 M	06.7.2001	4.67	06.00	
		13.7.2001	4.27	06.00	
		24.7.2001	5.07	06.00	
		01.8.2001	5.33	06.00	
		06.8.2001	5.95	06.00	
		09.8.2001	5.63	06.00	
		21.8.2001	5.18	06.00	
		29.8.2001	5.36	06.00	
		04.9.2001	6.10	06.00	
		12.9.2001	6.48	06.00	
		17.9.2001	6.53	06.00	<b>This year's</b>
		20.9.2001	6.48	06.00	<b>Highest level</b>
		01.10.2001	5.96	06.00	<b>6.53 M on</b>
		10.10.2001	5.96	06.00	<b>17.9.2001</b>
		11.10.2001	5.95	06.00	
		18.10.2001	5.73	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Rupnarayan	Bandar	25.6.2001	3.34	06.00	
	<b>Warning Level</b>	02.7.2001	3.64	06.00	
E.D.L.:	7.45 M	05.7.2001	3.17	06.00	
D.L.:	6.85 M	14.7.2001	4.02	06.00	
		24.7.2001	5.05	06.00	
		01.8.2001	4.66	06.00	
		03.8.2001	4.87	06.00	
		09.8.2001	4.23	06.00	
		21.8.2001	3.41	06.00	
		28.8.2001	3.56	06.00	
		04.9.2001	5.39	06.00	
		10.9.2001	5.88	06.00	<b>This year's</b>
		13.9.2001	5.33	06.00	<b>Highest level</b>
		20.9.2001	3.96	06.00	<b>5.88 M on</b>
		03.10.2001	3.32	06.00	<b>10.9.2001</b>
		06.10.2001	4.23	06.00	
		11.10.2001	4.95	06.00	
		19.10.2001	3.10	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Rupnarayan</b>	<b>Gopiganj</b>	11.7.2001	2.31	06.00	
	<b>Warning Level</b>	14.7.2001	3.78	06.00	<b>This year's</b>
<b>E.D.L.:</b>	5.63 M	24.7.2001	3.38	06.00	<b>Highest level</b>
<b>D.L.:</b>	5.03 M	31.7.2001	2.65	06.00	<b>3.78 M on</b>
		03.8.2001	3.11	06.00	<b>14.7.2001</b>
		13.8.2001	3.01	06.00	
		16.8.2001	3.81	06.00	
		25.8.2001	2.19	06.00	
		04.9.2001	3.53	06.00	
		11.9.2001	3.53	06.00	
		13.9.2001	3.23	06.00	
		20.9.2001	2.59	06.00	
		03.10.2001	1.64	06.00	
		08.10.2001	2.16	06.00	
		12.10.2001	1.86	06.00	
		20.10.2001	1.86	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Rupnarayan</b>	<b>Ranichak</b>	26.6.2001	3.65	06.00	
	<b>Warning Level</b>	29.6.2001	3.84	06.00	
<b>E.D.L.:</b>	5.94 M	06.7.2001	3.14	06.00	
<b>D.L.:</b>	5.34 M	14.7.2001	3.72	06.00	
		24.7.2001	4.81	06.00	
		01.8.2001	4.20	06.00	
		03.8.2001	4.63	06.00	
		09.8.2001	3.93	06.00	
		21.8.2001	3.20	06.00	
		28.8.2001	3.29	06.00	
		04.9.2001	5.12	06.00	
		10.9.2001	5.39	06.00	<b>Above D.L.</b>
		13.9.2001	4.93	06.00	<b>&amp; this year's</b>
		20.9.2001	3.90	06.00	<b>Highest level</b>
		03.10.2001	3.11	06.00	
		06.10.2001	3.84	06.00	
		12.10.2001	3.01	06.00	
		20.10.2001	3.05	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Dwarka	Ranagram	20.6.2001	14.67	06.00	
	<b>Warning Level</b>	24.6.2001	15.12	06.00	<b>Steady upto</b>
E.D.L.:	17.86 M	28.6.2001	14.49	06.00	<b>25.6.2001</b>
D.L.:	17.36 M	05.7.2001	13.44	06.00	
		13.7.2001	12.21	06.00	
		24.7.2001	12.40	06.00	
		01.8.2001	14.30	06.00	
		04.8.2001	14.69	06.00	
		09.8.2001	13.76	06.00	
		16.8.2001	13.66	06.00	
		29.8.2001	13.87	06.00	
		02.9.2001	14.59	06.00	<b>Steady upto</b>
		12.9.2001	16.09	06.00	<b>3.9.2001</b>
		13.9.2001	16.03	06.00	
		20.9.2001	15.19	06.00	
		03.10.2001	13.49	06.00	
		08.10.2001	16.15	06.00	<b>Steady upto</b>
		11.10.2001	15.83	06.00	<b>9.10.01 &amp; this</b>
		19.10.2001	14.84	06.00	<b>Year's H.L.</b>

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Mayurakshi	Narayanpur	11.6.2001	23.73	06.00	
	<b>Warning Level</b>	17.6.2001	24.64	06.00	
E.D.L.:	28.58 M	22.6.2001	24.85	06.00	<b>This year's</b>
D.L.:	27.98 M	03.7.2001	24.29	06.00	<b>Highest level</b>
		05.7.2001	24.01	06.00	<b>24.85 M on</b>
		18.7.2001	24.09	06.00	<b>22.6.2001</b>
		19.7.2001	23.71	06.00	
		01.8.2001	23.84	06.00	
		02.8.2001	23.92	06.00	
		12.8.2001	23.61	06.00	
		16.8.2001	23.56	06.00	
		28.8.2001	23.74	06.00	
		31.8.2001	24.22	06.00	
		09.9.2001	24.25	06.00	
		19.9.2001	24.55	06.00	
		20.9.2001	24.15	06.00	
		03.10.2001	23.79	06.00	
		05.10.2001	24.51	06.00	
		11.10.2001	24.01	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Ajoy	Sikatia	10.6.2001	162.32	06.00	
	Warning Level	17.6.2001	164.00	06.00	This year's
E.D.L.:	166.24 M	22.6.2001	163.82	06.00	Highest level
D.L.:	165.64 M	28.6.2001	163.00	06.00	164.00 M on
		05.7.2001	162.54	06.00	17.6.2001
		17.7.2001	162.57	06.00	
		21.7.2001	162.51	06.00	
		28.7.2001	163.30	06.00	
		03.8.2001	162.56	06.00	
		09.8.2001	162.26	06.00	
		17.8.2001	162.37	06.00	
		29.8.2001	163.62	06.00	
		30.8.2001	163.78	06.00	
		07.9.2001	163.84	06.00	
		14.9.2001	163.57	06.00	
		20.9.2001	163.18	06.00	
		03.10.2001	163.10	06.00	
		06.10.2001	163.70	06.00	
		11.10.2001	162.92	06.00	
		18.10.2001	162.60	06.00	Steady upto 19.10.01

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Ajoy	Katwa	26.6.2001	12.48	06.00	
	Warning Level	28.6.2001	11.90	06.00	
E.D.L.:	15.09 M	06.7.2001	11.30	06.00	
D.L.:	14.48 M	12.7.2001	10.80	06.00	Steady upto
		20.7.2001	10.75	06.00	13.7.2001
		01.8.2001	11.65	06.00	
		02.8.2001	11.94	06.00	
		10.8.2001	11.45	06.00	
		16.8.2001	11.20	06.00	
		29.8.2001	11.19	06.00	
		02.9.2001	12.39	06.00	
		10.9.2001	12.87	06.00	
		19.9.2001	12.90	06.00	
		20.9.2001	12.91	06.00	This year's
		27.9.2001	11.26	06.00	Highest level
		08.10.2001	12.34	06.00	12.91 M on
		12.10.2001	12.20	06.00	20.9.2001
		18.10.2001	11.17	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Ajoy	Gheropara	11.6.2001	36.43	06.00	
	<b>Warning Level</b>	18.6.2001	37.72	06.00	
E.D.L.:	40.46 M	21.6.2001	37.87	06.00	
D.L.:	39.41 M	01.7.2001	37.79	06.00	
		05.7.2001	36.82	06.00	
		13.7.2001	36.02	06.00	
		23.7.2001	36.37	06.00	
		01.8.2001	37.23	06.00	
		02.8.2001	37.19	06.00	
		09.8.2001	36.31	06.00	
		19.8.2001	36.10	06.00	
		27.8.2001	37.05	06.00	
		31.8.2001	37.70	06.00	
		08.9.2001	37.74	06.00	
		19.9.2001	38.25	06.00	This year's H.L.
		20.9.2001	37.44	06.00	38.25M on 19.9.01.
		27.9.2001	36.34	06.00	
		07.10.2001	37.23	06.00	Steady upto 8.10.01
		11.10.2001	37.26	06.00	
		19.10.2001	37.31	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Ajoy	Budra	21.6.2001	38.20	06.00	
	<b>Warning Level</b>	29.6.2001	37.47	06.00	
E.D.L.:	40.10 M	06.7.2001	36.58	06.00	
D.L.:	39.49 M	12.7.2001	36.28	06.00	Steady upto
		24.7.2001	36.52	06.00	13.7.2001
		01.8.2001	37.41	06.00	
		03.8.2001	37.01	06.00	
		09.8.2001	36.40	06.00	
		16.8.2001	36.19	06.00	
		27.8.2001	37.19	06.00	
		31.8.2001	37.89	06.00	
		08.9.2001	37.89	06.00	
		19.9.2001	38.47	06.00	This year's
		20.9.2001	37.59	06.00	Highest level
		27.9.2001	36.58	06.00	38.47 M on
		08.10.2001	37.47	06.00	19.9.2001
		11.10.2001	37.47	06.00	
		19.10.2001	37.53	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.A**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Damodar	Randia	20.6.2001	49.31	06.00	
	Warning Level	27.6.2001	49.59	06.00	
E.D.L.:	53.49 M	28.6.2001	49.95	06.00	
D.L.:	52.88 M	09.7.2001	49.62	06.00	
		18.7.2001	49.56	06.00	
		23.7.2001	49.98	06.00	
		01.8.2001	49.86	06.00	
		02.8.2001	49.80	06.00	
		13.8.2001	49.99	06.00	
		21.8.2001	49.53	06.00	Steady upto
		27.8.2001	49.62	06.00	22.8.2001
		03.9.2001	50.08	06.00	This year's
		06.9.2001	49.71	06.00	Highest level
		15.9.2001	49.77	06.00	50.08 M on
		24.9.2001	49.65	06.00	3.9.2001
		30.9.2001	49.53	06.00	
		08.10.2001	49.62	06.00	
		11.10.2001	49.62	06.00	
		18.10.2001	49.54	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Damodar	Jamalpur	19.6.2001	17.38	06.00	Steady upto 20.6.01
	Warning Level	26.6.2001	18.66	06.00	
E.D.L.:	23.53 M	03.7.2001	20.88	06.00	This year's Highest Level
D.L.:	23.23 M	06.7.2001	18.63	06.00	20.88M on 3.7.01
		16.7.2001	18.26	06.00	Steady upto 17.7.01
		24.7.2001	19.88	06.00	
		01.8.2001	19.33	06.00	
		02.8.2001	19.88	06.00	
		09.8.2001	17.59	06.00	
		16.8.2001	17.44	06.00	
		29.8.2001	17.07	06.00	
		31.8.2001	20.64	06.00	
		06.9.2001	19.42	06.00	
		16.9.2001	19.36	06.00	
		20.9.2001	18.57	06.00	
		27.9.2001	17.50	06.00	
		05.10.2001	17.68	06.00	
		14.10.2001	17.59	06.00	
		18.10.2001	17.14	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time (in Hours)	Remarks
1	2	3	4	5	6
Damodar	Champadanga	20.6.2001	9.45	06.00	
	Warning Level	27.6.2001	10.36	06.00	
E.D.L.:	13.49 M	29.6.2001	11.67	06.00	
D.L.:	12.89 M	05.7.2001	10.45	06.00	
		14.7.2001	10.05	06.00	
		24.7.2001	11.12	06.00	<b>Steady upto 15.7.2001</b>
		26.7.2001	10.72	06.00	
		02.8.2001	11.27	06.00	
		09.8.2001	9.51	06.00	
		16.8.2001	9.08	06.00	
		28.8.2001	9.20	06.00	
		04.9.2001	11.82	06.00	<b>This year's Highest level</b>
		07.9.2001	10.91	06.00	
		16.9.2001	10.79	06.00	<b>11.82 M on 4.9.2001</b>
		20.9.2001	10.39	06.00	
		27.9.2001	8.99	06.00	
		07.10.2001	9.23	06.00	
		14.10.2001	9.39	06.00	
		18.10.2001	8.96	06.00	

River	Gauge at	Date	Level (in M)	Time (in Hours)	Remarks
1	2	3	4	5	6
Damodar	Amta	27.6.2001	4.58	06.00	
	Warning Level	30.6.2001	5.94	06.00	<b>Above D.L. &amp; this year's Highest Level.</b>
E.D.L.:	6.24 M	01.7.2001	5.65	06.00	<b>Above D.L.</b>
D.L.:	5.64 M	02.7.2001	5.68	06.00	<b>Above D.L.</b>
		03.7.2001	5.64	06.00	<b>Above D.L.</b>
		06.7.2001	4.60	06.00	
		12.7.2001	4.18	06.00	
		25.7.2001	5.52	06.00	
		26.7.2001	5.35	06.00	
		03.8.2001	5.66	06.00	<b>Above D.L.</b>
		09.8.2001	4.35	06.00	
		05.9.2001	6.20	06.00	
		06.9.2001	5.74	06.00	<b>Above D.L.</b>
		17.9.2001	5.27	06.00	
		21.9.2001	4.67	06.00	
		07.10.2001	3.55	06.00	
		15.10.2001	3.50	06.00	<b>Steady upto 16.10.01.</b>

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Silabati	Gadghat	26.6.2001	3.99	06.00	
	<b>Warning Level</b>	04.7.2001	3.87	06.00	
E.D.L.:	9.60 M	11.7.2001	3.78	06.00	
D.L.:	9.00 M	14.7.2001	5.91	06.00	
		24.7.2001	6.72	06.00	
		01.8.2001	6.36	06.00	
		07.8.2001	6.49	06.00	
		11.8.2001	6.88	06.00	
		20.8.2001	4.56	06.00	
		29.8.2001	4.97	06.00	
		03.9.2001	7.26	06.00	
		10.9.2001	7.53	06.00	<b>This year's</b>
		13.9.2001	7.03	06.00	<b>Highest level</b>
		20.9.2001	4.94	06.00	<b>7.53 M on</b>
		03.10.2001	5.53	06.00	<b>10.9.2001</b>
		05.10.2001	6.00	06.00	
		12.10.2001	5.47	06.00	
		19.10.2001	4.66	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Silabatti	Banka	26.6.2001	11.85	06.00	
	<b>Warning Level</b>	04.7.2001	11.83	06.00	
E.D.L.:	15.68 M	05.7.2001	11.77	06.00	
D.L.:	15.08 M	14.7.2001	12.69	06.00	
		24.7.2001	14.36	06.00	
		31.7.2001	12.84	06.00	
		07.8.2001	12.78	06.00	
		12.8.2001	12.93	06.00	
		20.8.2001	12.56	06.00	
		29.8.2001	12.72	06.00	
		01.9.2001	15.22	06.00	<b>Above D.L. &amp;</b>
		07.9.2001	14.76	06.00	<b>This year's</b>
		18.9.2001	12.78	06.00	<b>Highest level</b>
		25.9.2001	12.21	06.00	
		03.10.2001	13.45	06.00	
		04.10.2001	13.53	06.00	
		11.10.2001	12.96	06.00	
		18.10.2001	12.38	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Mundeswari	Harinkhola	11.6.2001	7.01	06.00	
Warning Level		20.6.2001	7.79	06.00	
E.D.L.:	12.80 M	27.6.2001	8.86	06.00	
D.L.:	12.19 M	29.6.2001	11.23	06.00	This year's
		05.7.2001	9.04	06.00	Highest level
		15.7.2001	8.57	06.00	11.23 M on
		24.7.2001	10.18	06.00	29.6.2001
		26.7.2001	9.52	06.00	
		02.8.2001	10.45	06.00	
		09.8.2001	8.03	06.00	
		16.8.2001	7.51	06.00	
		28.8.2001	7.80	06.00	
		04.9.2001	11.14	06.00	
		06.9.2001	10.06	06.00	
		16.9.2001	9.89	06.00	
		20.9.2001	9.23	06.00	
		27.9.2001	7.02	06.00	
		06.10.2001	8.04	06.00	
		14.10.2001	7.89	06.00	
		18.10.2001	6.65	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Dwarakeswar	Arambag	18.6.2001	11.52	06.00	
Warning Level		25.6.2001	11.46	06.00	Steady upto 26.6.01.
E.D.L.:	17.83 M	30.6.2001	11.59	06.00	
D.L.:	17.22 M	06.7.2001	11.43	06.00	
		18.7.2001	11.76	06.00	
		24.7.2001	12.13	06.00	This year's
		29.7.2001	11.80	06.00	Highest level
		03.8.2001	11.46	06.00	12.70 M on
		14.8.2001	11.72	06.00	02.9.2001.
		16.8.2001	11.43	06.00	Steady upto 26.8.01.
		28.8.2001	11.76	06.00	
		02.9.2001	12.70	06.00	
		08.9.2001	12.16	06.00	
		12.9.2001	11.43	06.00	Steady upto 14.9.01
		19.9.2001	11.37	06.00	
		20.9.2001	11.43	06.00	Steady upto 4.10.01
		05.10.2001	11.55	06.00	Steady upto 7.10.01
		14.10.2001	12.04	06.00	
		19.10.2001	11.43	06.00	Steady upto 20.10.01

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Jalangi	Swarupganj	20.6.2001	7.34	06.00	
	Warning Level	24.6.2001	7.67	06.00	
E.D.L.:	9.05 M	28.6.2001	7.45	06.00	
D.L.:	8.44 M	05.7.2001	6.69	06.00	
		14.7.2001	6.38	06.00	
		25.7.2001	7.02	06.00	
		01.8.2001	7.41	06.00	
		05.8.2001	7.98	06.00	
		09.8.2001	7.68	06.00	
		16.8.2001	7.03	06.00	
		29.8.2001	7.59	06.00	
		03.9.2001	8.19	06.00	Steady upto 4.9.01.
		12.9.2001	8.66	06.00	Steady upto 13.9.01
		20.9.2001	8.60	06.00	& this year's
		27.9.2001	7.31	06.00	Highest level
		10.10.2001	8.18	06.00	
		11.10.2001	8.16	06.00	Steady upto 12.10.01
		18.10.2001	7.57	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
Kangsabati	Mohanpur	10.6.2001	22.92	06.00	
	Warning Level	20.6.2001	23.58	06.00	
E.D.L.:	25.72 M	23.6.2001	23.62	06.00	Steady upto 24.6.01
D.L.:	24.72 M	01.7.2001	23.82	06.00	
		11.7.2001	23.96	06.00	
		12.7.2001	25.08	06.00	Above D.L..
		21.7.2001	25.52	06.00	Above D.L. & This year's highest level.
		28.7.2001	24.38	06.00	
		04.8.2001	24.58	06.00	
		09.8.2001	23.88	06.00	
		18.8.2001	24.65	06.00	
		27.8.2001	24.78	06.00	Above D.L..
		02.9.2001	25.38	06.00	Above D.L..
		07.9.2001	25.38	06.00	Above D.L..
		15.9.2001	24.80	06.00	Above D.L..
		20.9.2001	24.56	06.00	
		02.10.2001	24.90	06.00	Above D.L..
		09.10.2001	24.64	06.00	Steady upto 10.10.01.
		11.10.2001	24.70	06.00	
		20.10.2001	24.64	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Old Cossye</b>	<b>Kalmijore</b>	25.6.2001	6.09	06.00	
	<b>Warning Level</b>	29.6.2001	5.97	06.00	
E.D.L.:	9.90 M	11.7.2001	6.00	06.00	
D.L.:	9.30 M	14.7.2001	7.21	06.00	
		19.7.2001	8.75	06.00	
		31.7.2001	7.10	06.00	
		07.8.2001	6.87	06.00	
		09.8.2001	6.43	06.00	
		20.8.2001	5.97	06.00	
		28.8.2001	6.86	06.00	
		02.9.2001	9.57	06.00	Above D.L. & This year's highest level.
		07.9.2001	9.11	06.00	
		13.9.2001	7.83	06.00	
		20.9.2001	6.25	06.00	
		03.10.2001	7.24	06.00	
		04.10.2001	7.01	06.00	
		12.10.2001	7.07	06.00	
		18.10.2001	5.80	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Ganga</b>	<b>Chakghat</b>	20.6.2001	13.81	06.00	
	<b>Warning Level</b>	27.6.2001	15.19	06.00	
E.D.L.:	21.49 M	04.7.2001	16.32	06.00	
D.L.:	20.88 M	11.7.2001	17.46	06.00	
		18.7.2001	18.24	06.00	
		23.7.2001	19.27	06.00	
		01.8.2001	19.83	06.00	
		06.8.2001	20.21	06.00	
		09.8.2001	19.89	06.00	
		22.8.2001	18.62	06.00	
		29.8.2001	20.34	06.00	
		31.8.2001	20.35	06.00	This year's
		07.9.2001	20.08	06.00	Highest level
		13.9.2001	19.92	06.00	20.35 M on
		20.9.2001	19.20	06.00	31.8.2001
		27.9.2001	18.06	06.00	
		10.10.2001	18.92	06.00	
		11.10.2001	18.95	06.00	
		18.10.2001	17.76	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in M)	Time (in Hours)	Remarks
1	2	3	4	5	6
Ganga	Manikchakghat	21.6.2001	22.44	06.00	
	Warning Level	04.7.2001	22.67	06.00	
E.D.L.:	25.54 M	11.7.2001	23.93	06.00	
D.L.:	24.69 M	12.7.2001	23.96	06.00	Steady upto 13.7.01
		23.7.2001	24.42	06.00	
		31.7.2001	24.72	06.00	Above D.L.
		01.8.2001	24.92	06.00	Above D.L.
		02.8.2001	24.99	06.00	Above D.L.
		03.8.2001	25.03	06.00	Above D.L.
		04.8.2001	25.09	06.00	Above D.L.
		08.8.2001	24.93	06.00	Above D.L.
		09.8.2001	24.68	06.00	
		22.8.2001	24.00	06.00	
		24.8.2001	24.78	06.00	Above D.L.
		25.8.2001	25.00	06.00	Above D.L.
		26.8.2001	25.10	06.00	Above D.L.
		27.8.2001	25.15	06.00	Above D.L.
		29.8.2001	25.19	06.00	Above D.L.& steady upto 30.8.01& this year's H.L.
		31.8.2001	25.15	06.00	Above D.L.
		01.9.2001	25.02	06.00	Above D.L.
		02.9.2001	24.84	06.00	Above D.L.
		03.9.2001	24.70	06.00	Above D.L.
		04.9.2001	24.74	06.00	Above D.L.
		05.9.2001	24.82	06.00	Above D.L.
		07.9.2001	24.92	06.00	Above D.L.
		09.9.2001	24.88	06.00	Above D.L.
		11.9.2001	24.74	06.00	Above D.L.
		13.9.2001	24.58	06.00	
		20.9.2001	23.82	06.00	
		27.9.2001	23.02	06.00	
		03.10.2001	23.14	06.00	
		08.10.2001	24.66	06.00	
		11.10.2001	23.74	06.00	
		18.10.2001	23.06	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Ganga</b>	<b>Farakka</b>	20.6.2001	17.31	06.00	
	<b>Warning Level</b>	27.6.2001	18.73	06.00	
<b>E.D.L.:</b>	23.77 M	03.7.2001	19.95	06.00	
<b>D.L.:</b>	22.25 M	11.7.2001	21.07	06.00	
		18.7.2001	21.83	06.00	
		20.7.2001	22.45	06.00	<b>Above D.L.</b>
		21.7.2001	22.68	06.00	<b>Above D.L.</b>
		22.7.2001	22.81	06.00	<b>Above D.L.</b>
		23.7.2001	22.85	06.00	<b>Above D.L.</b>
		24.7.2001	22.80	06.00	<b>Above D.L.</b>
		27.7.2001	22.76	06.00	<b>Above D.L.</b>
		28.7.2001	22.85	06.00	<b>Above D.L.</b>
		30.7.2001	23.03	06.00	<b>Above D.L.</b>
		01.8.2001	23.28	06.00	<b>Above D.L.</b>
		03.8.2001	23.55	06.00	<b>Above D.L. &amp; this year's highest level</b>
		05.8.2001	23.53	06.00	<b>Above D.L.</b>
		07.8.2001	23.45	06.00	<b>Above D.L.</b>
		09.8.2001	23.14	06.00	<b>Above D.L.</b>
		12.8.2001	22.34	06.00	<b>Above D.L.</b>
		22.8.2001	22.18	06.00	
		23.8.2001	22.65	06.00	<b>Above D.L.</b>
		29.8.2001	23.67	06.00	<b>Above D.L. steady upto 30.8.2001</b>
		01.9.2001	23.50	06.00	<b>Above D.L.</b>
		05.9.2001	23.20	06.00	<b>Above D.L.</b>
		13.9.2001	23.04	06.00	<b>Above D.L.</b>
		19.9.2001	22.46	06.00	<b>Above D.L.</b>
		20.9.2001	22.32	06.00	<b>Above D.L.</b>
		27.9.2001	21.06	06.00	
		10.10.2001	21.97	06.00	
		11.10.2001	21.94	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001.**

**South Bengal Rivers**

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Ganga</b>	<b>Nurpur</b>	20.6.2001	14.83	06.00	
	<b>Warning Level</b>	27.6.2001	16.22	06.00	
E.D.L.:	21.65 M	04.7.2001	17.37	06.00	
D.L.:	21.03 M	11.7.2001	18.56	06.00	
		18.7.2001	19.30	06.00	
		23.7.2001	20.34	06.00	
		01.8.2001	20.91	06.00	
		02.8.2001	21.07	06.00	<b>Above D.L.</b>
		06.8.2001	21.32	06.00	<b>Above D.L.</b>
		08.8.2001	21.13	06.00	<b>Above D.L.</b>
		09.8.2001	20.96	06.00	-
		22.8.2001	19.76	06.00	
		26.8.2001	21.20	06.00	<b>Above D.L.</b>
		29.8.2001	21.44	06.00	<b>Above D.L.</b>
		31.8.2001	21.45	06.00	<b>Above D.L. &amp; this year's highest level</b>
		03.9.2001	21.00	06.00	
		07.9.2001	21.19	06.00	<b>Above D.L.</b>
		13.9.2001	21.00	06.00	
		20.9.2001	20.31	06.00	
		27.9.2001	19.10	06.00	
		10.10.2001	19.94	06.00	
		11.10.2001	19.96	06.00	
		18.10.2001	18.18	06.00	

River	Gauge at	Date	Level (in m)	Time (in Hours)	Remarks
1	2	3	4	5	6
<b>Ganga</b>	<b>Geria</b>	20.6.2001	14.30	06.00	
	<b>Warning Level</b>	27.6.2001	15.71	06.00	
E.D.L.:	21.55 M	04.7.2001	16.86	06.00	
D.L.:	20.94 M	11.7.2001	18.03	06.00	
		18.7.2001	18.82	06.00	
		23.7.2001	19.85	06.00	
		01.8.2001	20.40	06.00	
		06.8.2001	20.74	06.00	
		09.8.2001	20.39	06.00	
		22.8.2001	19.08	06.00	
		29.8.2001	20.83	06.00	
		31.8.2001	20.84	06.00	<b>This year's</b>
		07.9.2001	20.58	06.00	<b>Highest level</b>
		13.9.2001	20.40	06.00	<b>20.84 M on</b>
		20.9.2001	19.63	06.00	<b>31.8.2001</b>
		27.9.2001	18.42	06.00	
		11.10.2001	19.32	06.00	
		18.10.2001	18.18	06.00	

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Sankosh	L.R.P. Crossing	30.6.2001	45.85	10.00	
		11.7.2001	45.90	10.00	
		17.7.2001	46.35	10.00	
	<b>WARNING LEVEL</b>	21.7.2001	46.30	10.00	
E.D.L.	: 49.10 M	30.7.2001	47.25	10.00	
D.L.	: 48.10 M	02.8.2001	46.85	10.00	
		14.8.2001	46.25	10.00	
		20.8.2001	46.55	10.00	
		24.8.2001	47.50	10.00	
		30.8.2001	46.85	10.00	
		03.9.2001	46.85	10.00	
		06.9.2001	46.55	10.00	
		13.9.2001	46.50	10.00	
		20.9.2001	46.20	10.00	
		21.9.2001	46.25	10.00	
		27.9.2001	46.05	10.00	
		05.10.2001	46.40	10.00	
		11.10.2001	46.25	10.00	

This  
Year's  
Highest  
Level  
47.50 m on  
24.8.2001

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Teesta	Coronation Bridge	10.6.2001	146.35	10.00	
		19.6.2001	147.40	10.00	
	<b>WARNING LEVEL</b>	23.6.2001	147.45	10.00	
E.D.L.	: 151.80 M	30.6.2001	146.85	10.00	
D.L.	: 149.40 M	05.7.2001	145.85	10.00	
		10.7.2001	146.50	10.00	
	<i>Significant Levels?</i>	16.7.2001	147.45	10.00	
		20.7.2001	146.70	10.00	
		25.7.2001	146.25	10.00	
		30.7.2001	148.45	10.00	
		03.8.2001	148.10	10.00	
		13.8.2001	146.85	10.00	
		18.8.2001	147.55	10.00	
		29.8.2001	149.00	10.00	
		04.9.2001	147.35	10.00	
		06.9.2001	147.10	10.00	
		13.9.2001	147.50	10.00	
		20.9.2001	146.50	10.00	
		01.10.2001	146.80	10.00	
		05.10.2001	148.00	10.00	
		11.10.2001	147.50	10.00	

This year's  
highest  
level  
149.00 m  
on  
29.8.2001

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Torsa	Hasimara	04.7.2001	114.55	10.00	
		05.7.2001	114.50	10.00	
	<b>WARNING LEVEL</b>	16.7.2001	115.50	10.00	
E.D.L.	: 116.90 M	21.7.2001	115.25	10.00	
D.L.	: 116.30 M	01.8.2001	116.45*	10.00	
		02.8.2001	116.10	10.00	
		15.8.2001	115.40	10.00	
		22.8.2001	115.60	10.00	
		29.8.2001	115.85	10.00	
		02.9.2001	115.40	10.00	
		08.9.2001	114.55	10.00	
		14.9.2001	114.65	10.00	
		23.9.2001	114.45	10.00	
		02.10.2001	114.20	10.00	
		10.10.2001	116.05	10.00	
		11.10.2001	115.70	10.00	
		19.10.2001	115.30	10.00	

*Significant  
Levels*

\*Above  
D.L. &  
This  
Year's  
Highest  
Level.

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Kaljani	Alipurduar	30.6.2001	42.60	10.00	
		10.7.2001	42.75	10.00	
	<b>WARNING LEVEL</b>	17.7.2001	43.60	10.00	
E.D.L.	: 45.70 M	20.7.2001	42.75	10.00	
D.L.	: 45.10 M	01.8.2001	43.70	10.00	
		02.8.2001	44.05	10.00	
		15.8.2001	42.80	10.00	
		22.8.2001	42.80	10.00	
		23.8.2001	44.55	10.00	
		03.9.2001	44.40	10.00	
		06.9.2001	43.35	10.00	
		13.9.2001	43.15	10.00	
		22.9.2001	43.30	10.00	
		27.9.2001	43.00	10.00	
		10.10.2001	43.45	10.00	
		12.10.2001	43.30	10.00	
		19.10.2001	42.80	10.00	

This  
Year's  
Highest  
Level  
44.55 M  
on  
23.8.2001

**GAUGE LEVELS OF IMPORTANT RIVERS  
DURING FLOOD SEASON OF 2001**

**North Bengal Rivers**

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Raidak-I	L.R.P.Crossing	03.7.2001	44.83	10.00	
		10.7.2001	44.95	10.00	
	<b>WARNING LEVEL</b>	15.7.2001	44.90	10.00	
	E.D.L. : 47.60 M	19.7.2001	44.80	10.00	Steady upto
	D.L. : 46.70 M	30.7.2001	45.80	10.00	22.7.2001
		02.8.2001	45.40	10.00	Steady Upto
		09.8.2001	44.95	10.00	12.8.2001
		17.8.2001	44.90	10.00	
		24.8.2001	45.85	10.00	
		03.9.2001	46.10	10.00	This year's Highest Level
		12.9.2001	46.50	10.00	46.50 Mon
		13.9.2001	46.40	10.00	12.9.2001
		02.10.2001	45.10	10.00	
		07.10.2001	45.25	10.00	
		12.10.2001	45.20	10.00	

River	Gauge at	Date	Level(in M)	Time(in Hours)	Remarks
1	2	3	4	5	6
Raidak - II	L.R.P.Crossing	3.7.2001	46.61	10.00	
		8.7.2001	46.54	10.00	
	<b>WARNING LEVEL</b>	17.7.2001	46.98	10.00	
	E.D.L. : 49.00 M	21.7.2001	46.25	10.00	
	D.L. : 48.10 M	31.7.2001	46.80	10.00	
		02.8.2001	46.70	10.00	
		12.8.2001	46.20	10.00	
		21.8.2001	46.40	10.00	
		23.8.2001	47.57	10.00	This Year's Highest Level
		03.9.2001	46.70	10.00	47.57 M on
		12.9.2001	46.50	10.00	23.8.2001
		14.9.2001	46.65	10.00	
		21.9.2001	46.25	10.00	
		02.10.2001	46.30	10.00	
		05.10.2001	46.65	10.00	
		11.10.2001	46.50	10.00	

**STATEMENT OF RAINFALL DATA OF DIFFERENT RIVERS(SUB-BASINWISE)  
WITHIN WEST BENGAL DURING MONSOON PERIOD OF 2001.**  
(As per available data)

Sl. No	Name of the river Sub-basin including the name of the gauge station	Rainfall upto 15.6.01 (mm)	Rainfall upto 20.10.01 (mm)	Rainfall during mon- soon period (mm)	Sub- basin wise aver- age rain- fall du- ring mon- soon period (mm)	Yearly average rainfall (mm)	Sub- Basin wise yearly average rainfall (mm)	Sub-Basin wise mon- soon rain- fall in per- centage of yearly av- erage rain- fall (mm)
1	2	3	4	5	6	7	8	9
1.	SANKOSH	Rain gauge to be installed						
2.	RAIDAK							
	Tufanganj	1296.40	3004.20	1707.80	1707.80	3492.00	3492.00	49
3.	TORSA							
	Coochbehar	1448.50	2815.50	1367.00	1367.00	3580.00	3580.00	38
4.	JALDHAKA							
	Mathabhanga	1154.20	2367.80	1213.60	1213.60	3120.00	3120.00	39
5.	TEESTA							
	Jalpaiguri	880.20	3740.30	2860.10	2719.70	3290.00	3615.00	75
	Malbazar	1254.40	3833.70	2579.30		3940.00		
6.	MAHANANDA							
	Siliguri	876.40	3336.20	2459.80		3620.00		
	Raiganj	561.90	2094.00	1532.10	1718.60	1577.00	2199.00	78
	Malda	336.80	1500.60	1163.80		1400.00		
7.	PUNARBHAVA							
	Gangarampur	382.00	2136.00	1754.00	1754.00	1591.00	1591.00	110
8.	ATRAI							
	Balurghat	323.00	1142.00	819.00	819.00	1430.00	1430.00	57
9.	PAGLA- BANSLOI							
	Paikar	358.10	1428.05	1069.95	1069.95	1402.00	1402.00	76
10	BRAHMONI- DWARKA							
	Rampurhat	450.12	1615.00	1164.88	1144.80	1437.00	1232.00	93
	Nalhati	348.80	1473.50	1124.70		1026.00		
11	MAYURAKSHI							
	Maharo	199.40	1356.70	1157.30		1480.00		
	Massanjore	466.40	1779.20	1312.80	1091.50	1460.00	1437.00	76
	Tilpara Barrage	266.80	1518.40	1251.60		1400.00		
	Kandi	389.60	1033.70	644.10		1408.00		

1	2	3	4	5	6	7	8	9
<b>12. AJOY</b>								
Sikatia	235.40	1225.00	989.60					
Bolepur	441.40	1479.20	1037.80					
Gheropara	457.40	1292.80	835.40					
Katwa	503.43	1265.07	761.64					
<b>13. DAMODAR</b>								
Tilaiya	99.40	1179.80	1080.40					
Tenughat	2651.10	1395.60	1130.50					
Maithon	287.80	1203.00	915.20					
Panchet Dam	357.10	1141.50	784.40					
Durgapur	432.40	1199.90	767.50					
Harinkhola	434.70	1258.40	823.70					
Amta	393.40	1509.60	1116.20					
<b>14. DWARAKESWAR</b>								
Simulia	275.40	1332.20	1056.80	894.90	1270.00	1357.00	66	
Arambag	374.00	1107.00	733.00		1444.00			
<b>15. SILABATI</b>								
Ghatal	520.10	2042.10	1522.00	1522.00	1455.00	1455.00	105	
<b>16. KANGSABATI</b>								
Tusuma	387.00	1310.20	923.20		1355.00			
Kangsabati Dam	526.60	1870.60	1344.00	1112.10	1300.00	1432.00	78	
Mohanpur	503.51	1653.71	1150.20		1556.00			
Panskura	520.50	1551.50	1031.00		1516.00			
<b>17. KALIAGHAI</b>								
Amgachia	800.97	1999.30	1198.33	1198.33	1508.00	1508.00	79	
<b>18. JALANGI</b>								
Swarupganj	502.20	1745.90	1243.70	1243.70	1440.00	1440.00	86	
<b>19. CHURNI</b>								
Ranaghat			Rain gauge to be installed		1348.00	1348.00	-	
<b>20. BHAGIRATHI-HOOGLY</b>								
Berhampore	189.50	1364.80	1175.30	962.65	1390.00	1500.00	64	
Kolkata	510.00	1260.00	750.00		1610.00			
<b>21. RUPNARAYAN</b>								
Tamluk	783.10	1903.00	1119.90	1119.90	1608.00	1608.00	70	
<b>22. SUBARNAREKHA</b>								
Digha	701.50	1565.50	864.00	864.00	1610.00	1610.00	54	
<b>23. 24-PGS. &amp; KOLKATA</b>								
Tentulia	468.00	1361.50	893.50	1122.50	1623.00	1566.00	72	
Barasat	448.90	1800.35	1351.45		1508.00			
<b>24. PICHABONI</b>								
Ramnagar			Rain gauge to be installed		1641.00	1641.00	-	
<b>25. RASULPUR</b>								
Contai	416.00	1660.10	1244.10	1244.10	1700.00	1700.00	73	
<b>26. HALDI</b>								
Haldia			Rain gauge to be installed		1737.99	1737.99	-	

**Statement of Damages to Embankments / Sluices in  
different districts of West Bengal during the Flood – 2001.**

Sl. No.	District	River	Police Station/Block	Nature & extent of damages					Inun- dated Area (Sq.km. )
				Breach No./ KM	Severly/ partially damaged (KM)	Damages to protective Works(KM)	Slip/Bank Erosion (KM)	Sluices (No.)	
1	2	3	4	5	6	7	8	9	10
1.	MURSHIDABAD	Brahmoni	Nabagram, Khargram, Kandi	-	0.590	-	0.370	-	-
		Dwarka	Nabagram, Kandi, Berhampur, Khargram	-	13.550	-	1.240	1	-
		Jalangi	Nawda	-	-	0.400	0.250	-	-
		Bhairab	Lalbag, Doulatabad, Raninagar, Islampore, Domka, Khriharpara	-	-	-	2.600	-	-
		Mayurakshi	Burdwan	-	6.835	-	0.950	-	-
		Bele	Bharatpur, Kandi	-	11.528	-	-	1	-
		Kuiya	Bharatpur	-	9.870	-	0.120	1	-
		Chuatore	Bharatpur	-	1.000	-	-	-	-
		Kana- Mayurakshi	Kandi, Khargram	-	4.930	0.260	-	-	-
		Bhagirathi	Lalgola, Raghunathganj, Sagardighi, Jiaganj, Beldanga, Rejinagar	-	1.400	0.100	0.60	5	-
		Colcoli	Bhagawangola, Jiaganj	-	0.480	-	0.25	-	-
2.	NORTH DINAJPUR	Babla	Rejinagar	-	0.500	-	-	-	-
		Bagmari	Kandi	-	1.750	-	-	1	-
		Sui, Gamari, Mahananda, Kulik, Tangon, Nagar	Itahar	-	-	-	-	-	60.50
		Raiganj	Goalpokhar, Karandighi	-	-	-	-	-	-
<b>Total</b>				-	<b>52.433</b>	<b>0.760</b>	<b>6.380</b>	<b>9</b>	<b>60.50</b>