The Deluge 2000
Jitendra Roy

Introduction
1. Floods are a regular feature in West Bengal. In the last 29 years, the state had witnessed floods 21 times. However, the unprecedented floods in September–October 2000 will be remembered for decades to come. The intensity of the floods had surpassed even that of the landmark floods of 1978. All records of rainfall were broken. The water levels in all the major rivers in the Bhagirathi-Hooghly basin touched new heights. All roads including the National Highway (NH-34) which connects South Bengal with North Bengal were submerged. More than 21 million people were affected; about 2 million houses were damaged or destroyed and hundreds of lives were lost. Infrastructural losses were enormous. Bridges and culverts got destroyed at many places. There was devastation all around. The total estimated damage was about Rs.5660 crore, which is the highest for any single disaster in the state.

Location
2. The Deluge in 2000 happened mainly in the Bhagirathi–Hooghly basin and the basin area of Mathabhanga, Churni and Ichhamati. However, there was trans-basin flood spill that continued eastwards up to Bangladesh. The three most affected districts were Murshidabad, Nadia and North 24 Parganas. These are adjacent districts located in the eastern part of southern Bengal. The Ganga with all its tributaries covers all the three districts. The Ganga flows through the north of Murshidabad and at a point below Farakka bifurcates into two great distributaries: Padma and Bhagirathi. The former continues to flow eastwards, flows through Bangladesh and ultimately falls in the Bay of Bengal. The Bhagirathi flows south bisecting Murshidabad. The rivers Mayurakshi and Dwarka join the Bhagirathi in the northern part of the district while the Messanjore Dam and Tilpara barrage are to its west. The Bhagirathi receives water from its left bank tributaries like Jalangi and Churni in Nadia district. Flowing through all the three districts of Murshidabad, Nadia and North 24 Parganas, it finally falls in the Bay of Bengal at the famous confluence point called Ganga Sagar (Sagar islands). The river Mathabhanga originating from the Padma in Murshidabad enters Bangladesh and after a long journey emerges in India at Gede in Nadia. After flowing for a few kilometers, it bifurcates into Churni and Ichhamati. The former flows in Nadia and falls into the Bhagirathi near Ranaghat. The latter travels for about 15 kms in Indian territory and then runs along the Bangladesh border. It re-enters into India a few kilometres above Bongaon and thereafter flows within India in Basirhat sub-division of North 24 Parganas district.

The Cause of the Deluge
3. Rainfall had been erratic in 2000. Towards the end of the monsoon there was incessant rainfall in the 3rd and 4th weeks of September 2000 not only in these districts but also in the upper catchment area of Bihar, Jharkhand and North Bengal. The accumulated water posed severe threats to reservoirs, dams and barrages in the region. From 18–23 September, Murshidabad alone received 1200 mm. of rain in addition to its annual quota of 1500 mm. The Mayurakshi catchment area upstream of Messanjore Dam received 1008 mm rainfall in 96 hours from 18 to 22 September, which remains a record to this day. All the major rivers were flowing above their danger levels by 19th September.
and the low lying areas were already inundated. There was water-logging in most areas, rural and urban alike. Discharge of water from barrages under compelling circumstances was the last nail in the coffin. The water level of Bhagirathi-Jalangi at Swarupganj (Nadia) was 9.61 mtr on 20.9.2000 (Danger Level 9.05 m.) after the Tilpara Barrage released nearly 1.5 lakh cusec of water followed by another release of 1.2 lakh cusec.

4. The following tables give an idea of the rainfall and the discharges from the Tilpara barrage and the Massanjore dam:

**Table - 1: Rainfall (in mm.)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Berhampore</td>
<td></td>
<td>140.00</td>
<td>558.80</td>
<td>471.20</td>
<td>92.10</td>
<td>25.40</td>
</tr>
<tr>
<td>Kandi</td>
<td></td>
<td>30.00</td>
<td>332.80</td>
<td>250.0</td>
<td>65.00</td>
<td>N.A</td>
</tr>
<tr>
<td>Bharatpur</td>
<td></td>
<td>32.00</td>
<td>210.00</td>
<td>230.00</td>
<td>N.A</td>
<td>N.A</td>
</tr>
<tr>
<td>Salar</td>
<td></td>
<td>57.00</td>
<td>393.00</td>
<td>330.00</td>
<td>58.00</td>
<td>N.A</td>
</tr>
</tbody>
</table>

**Table - 2: Volume of rainfall in catchment areas (18 to 21.9.2000)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Catchment area (in Sq. Km)</th>
<th>Volume of rainfall in Catchment areas (in Lakh acre-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pagla-Bansloi</td>
<td>2200</td>
<td>20.81</td>
</tr>
<tr>
<td>Brahmani-Dwarka</td>
<td>3446</td>
<td>32.59</td>
</tr>
<tr>
<td>Mayurakshi (upstream of Massanjore)</td>
<td>1860</td>
<td>15.17</td>
</tr>
<tr>
<td>Mayurakshi Massanjore to Tilpara</td>
<td>1349</td>
<td>12.62</td>
</tr>
<tr>
<td>Mayurakshi (Tilpara to Babla)</td>
<td>1900</td>
<td>9.20</td>
</tr>
<tr>
<td>Ajay</td>
<td>6000</td>
<td>38.87</td>
</tr>
<tr>
<td>Jalangi</td>
<td>4300</td>
<td>27.67</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21055</strong></td>
<td><strong>156.93</strong></td>
</tr>
</tbody>
</table>

**Table - 3: Discharge of water from Tilpara and Massanjore**

<table>
<thead>
<tr>
<th>Date</th>
<th>Tilpara Rate of discharge (in cusec)</th>
<th>Massanjore Rate of discharge (in cusec)</th>
<th>Total Discharge (in acre-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.9.2000</td>
<td>1,09,284</td>
<td>99,471</td>
<td>45,831</td>
</tr>
<tr>
<td>19.9.2000</td>
<td>1,47,991</td>
<td>1,27,918</td>
<td>2,25,346</td>
</tr>
<tr>
<td>20.9.2000</td>
<td>1,25,925</td>
<td>1,28,550</td>
<td>2,34,939</td>
</tr>
<tr>
<td>21.9.2000</td>
<td>2,46,000</td>
<td>2,00,500</td>
<td>3,22,403</td>
</tr>
<tr>
<td>22.9.2000</td>
<td>1,44,180</td>
<td></td>
<td>1,87,839</td>
</tr>
</tbody>
</table>

5. It has been estimated that a discharge of more than 4.5 lakh cusec passed through the Bhagirathi against its carrying capacity of 1.05 lakh cusec. Again, more than 1.5 lakh
cusec of discharge entered into the Ichhamati-Churni system. The carrying capacity of Ichhamati is at the most 20,000 cusec. The consequences were obvious—the most devastating floods in the history of West Bengal.

THE BEGINNING AND PROGRESS OF THE DISASTER

MURSHIDABAD

6. On 17th September there was heavy rainfall in catchment areas of the rivers Pagla-Bansloi and Brahmani-Dwarka thereby flooding them. At midnight the District Magistrate (DM)—who had joined only on 6th September—received information from his counterpart at Birbhum that the Tilpara barrage was overloaded and had to evacuate some of its excess water immediately. He said water would be released at the rate of 40,000 cusecs. The DM immediately called the S.P. and the SDPO Kandi sub-division. He posed the problem of how to inform the populace about this huge volume of water rushing in from the west. The SDPO left his residence immediately and, in the absence of any public address system, used the loudspeakers atop the mosques to start what became a relay transmission, from one mosque to another, telling the people of the impending danger. But, to the disappointment of the DM none was willing to voluntarily move from his hearth.

7. On 18th September by evening, it had rained 120 mm. The midnight call from DM Birbhum came again, this time intimating that the rainfall had further exacerbated the reservoir position in the Tilpara barrage and that this time they had no option but to release water at the rate of 75,000 cusecs. Besides, there was no let up in the rain; the skies had opened up, with no mercy. Reports were coming in that massive precipitation was going on over a large area covering thousands of square kilometres in Bihar, Jharkhand and North Bengal. The water had to flow south and east: Murshidabad was going to receive all these millions of cubic metres of water! From 18th to 23rd September 2000, the district received 1200 mm. rain.

8. By 19th September this flood water reached the Bhagirathi. The rainwater of the entire catchment area of Pagla-Bansloi entered into the Bhagirathi through Pagla river near Jangipur and through Kharkhari river near Mirzapur. The entire area including Raghunathganj town, the sub-divisional headquarters, was flooded.

9. On 20th September waters of Bansloi spilled over its eastern bank and hit the feeder canal from west. Ultimately it crossed the feeder canal and, flowing across the National Highway, flooded Suti-I & Suti-II Development Blocks. Floodwaters of Pagla-Bansloi coupled with the local rainfall inundated vast areas of Raghunathganj-I, Raghunathganj-II and Lalgola Blocks.

10. Berhampore town, the district headquarters, was inundated due to heavy rains and the Indraprastha area faced the highest inundation as this was earlier a part of Bishnupur Bil. Floodwaters of Bhagirathi tend to overflow its eastern bank, causing floods in Lalbagh, Domkal and Sadar sub-divisions. Around 20th September the possibility of the flood waters of the Bhagirathi entering the town arose. From Gorabazar to Haridasmati, river water started spilling over its left bank. Minor breaches occurred at different places but devastation could be avoided by patchwork repair using gunny-bags filled with sand/mud. However, as the drainage system was obstructed as a result of spread of indiscriminate constructions in the outskirts of the town, floodwater took more than a week to recede.
11. From Bhagwangola to Plassey there is a 90 km. long embankment along the left bank of the Bhagirathi. From the morning of 20.9.2000 till the night of 21.9.2000 this embankment was breached in 82 places. The total length of breach of the embankment was 5061 metres. The breaches at Kalukhali, Mahula, Mayaampur, Dadpur, Lokenathpur, Rampara, etc. caused heavy devestation. [See Map at Annex – II]

12. Kalukhali is a village in Bhagwangola–1 Block on the left bank of the Bhagirathi where the embankment and State Highway-12 run side by side. The embankment here is 1.7 metres high and even in 1999 flood water did not spill over here. Floodwaters of the Bhagirathi reached the place on 20.9.2000 and in the morning of 22.9.2000 it started spilling over the embankment. Efforts made to contain the water by placing gunny bags full of earth and sand failed and at 9 at night 152 metres long portion of the embankment was breached, washing away the State Highway. It took heavy toll by destroying a number of houses and even washed away the railway line near Subarnamrigi railway station and flowed with a heavy run-off along the channels of Gobranala and Bhandardaha till it reached Jalangi after traversing a 50 mile long course. The name Kalukhali became a symbol of devestation.

13. Mayaampur is located within Beldanga-I Block where the embankment last broke in 1978. On 19.9.2000 the water level was 2.5 meters below the embankment. On the morning of 20.9.2000 water started overtopping it and at 8 A.M. 197 metres long portion of the embankment was washed away, damaging N.H 34 and the railway line, resulting in high inundation of the whole of Beldanga-I Block and part of Hariharpura block. Bhagirathi had breached its embankments in many other places the same day because the run-off of Dwarka-Babla from the west hit Bhagirathi directly at that time.

14. Rivers in Kandi Sub-division ran in high spate. Water rushed through the narrow navigation canals washing out the embankments that fell in their course. The vast areas of the sub-division were inundated. Rainwaters of catchment areas of Santhal Parganas and Birbhum were carried downstream by hill freshets (fast flowing streams originating in the Chotanagpur hills). This run-off of rainwater added to the inundation of all blocks of Kandi sub-division, Nabagram Block of Lalbagh sub-division and the western part of Beldanga–2 Block of Sadar sub-division. Finally when it reached the Bhagirathi the situation became worse as this river was already full to the brim. This caused a backflow in the western tributaries of the Bhagirathi resulting in stagnation of water in the areas west of it.

15. A breach occurred in the left bank of Mayurakshi river in Birbhum and this floodwater entered Kana Mayurakshi whose carrying capacity was 1/10th that of the Mayurakshi. Naturally, Kana Mayurakshi could not contain the heavy flow, which resulted in further inundation of Burwan and Kandi.

16. On 19.9.2000 Kandi-Gangedda embankment was overtopped by a 2-4 feet high surge of floodwater and 5-10 feet high water ran across Kandi-Berham pore road. Kandi Laharpura bandh, and Indodangapara bandh along the left bank of Kana Mayurakshi and embankments at various places over the right bank also breached, resulting in flooding of the entire Kandi sub-division including Kandi town.

17. Rains in the catchment area of Brahmani, a flow of 80,000-cusec water from Baidhara Barrage [near Mallarpur in Mayureswar -I block in Birbhum district] and uncontrolled discharge of water of the Tripitar [in Birbhum district] incapacitated Brahmani to contain floodwaters in her channel. Further, the right afflux bandh of the
Dwarka Barrage at Deucha [in Birbhum] broke in the evening of 18.9.2000. These two rivers meet at Sankoghat in Murshidabad and downstream Gombhira falls into it. The huge flow of flood water of the four hill freshets [originating from the Chotanagpur hills] caused devastation in Nabagram, Khargram and Kandi. Finally these flood waters reached Hijol along their usual course causing breach of embankments on both the sides, washing away metal roads that fell in their way.

18. The flood waters that flowed along the channels of Kopai, Bakreswar [in Birbhum] and their combined stream Kuiya [the confluence point being at Labpur in Birbhum] swept away embankments at a number of places. The embankments along river Bele (a branch of Mayurakshi) got breached at several places on 19.9.2000. Result of these was inundation and devastation in Khargram, Burwan, Kandi and Bharatpur blocks of Murshidabad district.

19. A vast area of about 5,000 sq. km. covering 29 blocks and 5 municipalities of the district went under water.

NADIA

20. In Nadia district it began with a breach in a brick embankment at Fulia-Boyra near Krittibas Library in Ranaghat Sub-division on 19.9.2000. An electric pole was ordered to be disconnected to prevent electrocution. A few families were reported to have been affected. Events thereafter occurred thick and fast. Bablapara and Nutangram under Haripur G.P in Santipur were flooded and people in those areas were requested to shift to safer places. The Ranaghat –II block office got submerged. The BDO who had taken charge of the block only on 25th August 2000 somehow managed to save a typewriter, an issue register and some papers with which he went to the Nokari G. P. and set up his office there to conduct the emergency operations.

21. The Block Development Officer (BDO) Kaliganj reported a breach in Serakhali point in Jagatkhali Embankment inundating nearby areas, e.g. Matiari, Juranpur, Gobra, Faridpur, Hatgachha, Rajarampur, Ghoraikshetra, Palitbegia. The BDO Office was partly immersed and police posting was required there. Debagram R.O.P. [Rural out-post] was affected. Debagram, Paglachandi, Molandi, Mira-Plassey, Char Chuadanga areas were inundated on the 19 September 2000.

22. The Commissioner, Presidency Division, arrived at Krishnanagar on his way to Berhampur on 19th September and took stock of the situation. He was compelled to return to Krishnanagar as the road from Plassey onwards had got submerged. On his way back he cleared flood victims squatting on NH-34 near Bethuadahari, holding up long-distance buses and lorries, by talking to them and arranging for despatch of relief.

23. On 20th September the Serakhali point of Jagatkhali embankment was damaged and the office of the BDO Kaliganj was almost submerged. The officers and staff had to shift to the B.L.L.R.O’s (Block Land and Land Reforms Officer) office there. The BDO sent an SOS stating that all communications had been disrupted. There occurred a breach in Gokhurapota Bundh near Brittihuda Gram Panchayat in Chapra Block. Executive Engineer, I & W tried to protect it temporarily with gunny bags.

24. The water level of Bhagirathi-Jalangi kept rising. It was 9.61 m on 20.9.2000 (DL 9.05 m) at Swarupganj. Vast areas of Prachin Mayapur and Nabadwip got inundated. BDO Nabadwip who was on leave and holidaying in the hills far off, heard of the floods and hitched a ride on top of a truck to reach Krishnagar. He met the DM and the
Divisional Commissioner. As Nabadwip was inaccessible, he was asked to run the Block office locally in Krishnagar till the situation improved.

25. Vast areas of Santipur, Tehatta I & II and Kaliganj were submerged or disconnected. Road communication was disrupted severely. Two Trucks carrying relief materials bound for Murshidabad could not reach the destination. Only two out of seven trucks bound for Krishnagar could manage to reach. Speed-boats, country-boats and even trawlers were used in Santipur Block for the purpose of rescue and shifting of the affected people.

26. On 21.9.2000, the Executive Engineer (I & W) informed the District Relief Control (DRC) that the Bhagirathi would overflow its banks and the river Churni was likely to spill over. Breach of Tarapur embankment [in Ranaghat – I block having border with Santipur block] was imminent and the extent of damage would be unprecedented. The Sub-divisional Officers were immediately informed of the impending danger. The Duty Officer (Wireless) reported that breach of Chulkani embankment in Chapra was likely. The embankment ultimately gave way and all attempts to save it went in vain. The water-level rose rapidly and the entire Chapra Block was in danger of being severely inundated.

27. Meanwhile, floodwater started entering fresh areas of Deypara and Ruipukur Gram Panchayats in Krishnagar–1 Block at midnight. People of these areas had never seen floods before and were in panic. The BDO tried his best to procure boats but without any success. [Govt. had ordered booking of boats in every block. But no boats were to be found though booked. One of the reasons for this was that past dues were still pending with govt. Further the Govt. rate was much less compared to what a boatman could earn daily in such a situation.] The Pradhans of those GPs came to the BDO early next morning and broke down requesting him to do something to save the marooned people. The BDO contacted the District Relief Control and after a lot of persuasion managed to get two speedboats from the Water Wing of Civil Defence (CD) for rescue operation. The CD staff rendered yeoman’s service in saving lives of the flood victims. Inundation continued in Krishnagar-1 and Chapra Blocks.

28. Krishnagar town was threatened by the rising water level of the river Jalangi. On 22.9.2000 the embankments had to be raised by about 2.5 feet by stacking up sand bags overnight. But all was in vain as the river water entered the town, overtopping the National Highway. The electricity sub-station at Krishnagar got affected and power supply had to be disconnected. Telephones had ceased to function in some parts of the district and the road communication system was choked.

29. All the 17 blocks and 10 municipalities of the districts were under the grip of flood by 25.9.2000, inundating Asannagar hospital of Krishnagore-1 Block, several Block offices like Nabadvip, Kaligonj, Ranaghat – I, Ranaghat – II, Shantipur, Hanskhali, Tehatta –I, Tehatta –II etc, Ranaghat Jail, Kalyani Central Park and FCI godown at Kalyani, office of the SDPO & CI Kalyani, the Court at Kalyani, part of Iswar Gupta Setu and many other offices and school buildings as well as infrastructure of public utilities. Paglachandi railway bridge was washed away on 25.9.2000, cutting of Kaliganj from the rest of the district. Murshidabad also got severed.
NORTH 24 PARGANAS

30. Due to merger of flood spills in different basins there was transfer of flood discharge from one basin to another. The flood spill of Bhagirathi and Jalangi rivers entered the basin of Mathabhanga, Churni and Ichhamati rivers. The huge discharge that entered Ichhamati exceeded its carrying capacity by far and spilled over both banks of the river inundating a vast area of Bongaon, Basirhat and parts of Barasat sub-division. The vast sheet of water travelled at high speed causing breaches in the embankments on both sides. It washed out 5 km. of flood embankment in mouzas Nalbon, Banglani, Faridkati, Kulia, Deepmedia and Kankrasuti of Bagdah Block. There were slips, erosion, bank failure etc of the Ichhamati in many places in Swarupnagar, Baduria, Basirhat-1, Hasnabad Blocks and Taki municipality causing widespread flood in these areas.

31. The Jessore Road [which connects Bongaon subdivision and Bangladesh with Barasat] remained inundated for many days. It became totally unfit for traffic movement beyond Gaighata bridge and road communication with Bangladesh had to be kept suspended for a number of days. The road bridge over Ichhamati at Bongaon was totally damaged. The Basirhat-Baduria-Swarupnagar Road remained under 7 to 8 feet of water. The full moon in the 2nd week of October 2000 retarded the recession of flood water.

32. More than an area of 960 sq.km. was affected causing damage to or destruction of 2,65,000 dwelling houses both in rural and urban areas. There was huge loss of standing crops, school buildings, railway tracks, bridges, culverts and public utilities. 47 valuable human lives and innumerable lives of cattle and pets were also lost.

SEARCH & RESCUE OPERATIONS

Nadia

33. In Tehatta – I Block approximately 5000 houses comprising 18000 families were affected on 19.9.2000 and most of them had been provided shelter in different primary schools. On 20.9.2000, the flood victims started squatting on NH-34 and other available high lands and school buildings. 4 (four) out of 11 (eleven) Gram Panchayats of the Block were submerged and no high land could be found to provide shelter.

34. The Sub-divisional Officer (SDO) Ranaghat requisitioned CD officials who immediately swung into rescue operation with their speed boats, which were used throughout the crisis period. 7660 families had to be shifted in Ranaghat. 78 Relief Camps were opened. On 20.9.2000, water level was 30 feet at Nilnagar Mouza under Santipur P.S. and rescue operations had to be continued with speed boats and mechanized boats. The affected people of other areas had been shifted to safer places. Four trawlers had been obtained from Balagarh in Hooghly District. SDO Ranaghat took ill and his Second Officer kept commanding the relief operations.

35. On 21.9.2000 the day doctors of Asannagar hospital (Krishnagar Block) requested the District Control to rescue them as the hospital building and its instruments were under waist-deep water and the marooned people had to be rescued. The Ranaghat subdivision asked for army boats as Relief Camps and shelters that were set up went under water as more and more water entered the area. There was agitation in the SDO Ranaghat’ office for relief materials. The mental condition of the SDO deteriorated further. The Divisional Commissioner advised the DM to request the Chief Secretary for the services
of Mr. P.K. Pradhan, IAS, Principal Secretary (and ex-DM of Nadia), Mr. R.P. Samaddar, IAS, Joint Secretary (and ex-SDO Ranaghat) and Mr. Kartick Chandra Mandal WBCS (Exe.) [and ex-BDO Ranaghat -I] all of the Urban Development department to tackle the situation at Ranaghat subdivision. They were deployed accordingly and took over the work of relief management in the subdivision from 22.09.2000 onwards. Besides them a team of officials was sent by the DM South 24 Parganas at the instance of the Divisional Commissioner to augment the scarce manpower situation in Ranaghat. However, they were not of much use as many of them were malingerers. Three teams consisting of one Inspector, two Sub-Inspectors and 25 officials of other ranks were deployed under the BDO, Ranaghat-1 since 22.9.2000 for rescue operations and distribution of food.

36. Krishnagar-1 Block and Municipality also asked for boats. But their needs could not be met despite the best attempts of the District authority. Tarpaulin shelters were arranged at Krishnagar Government College ground and Bipradas Paul Chowdhury College to house the affected people of Krishnagar town. But hardly anybody went there to stay. People preferred to stay near their houses on whatever highland available or near the block office of Krishnagar – I.

37. Two large boats provided by the Surface Transport Directorate were placed at Balagarh on 23.9.2000 for rescue operation. The ASI, Ranaghat P.S. seized 3 boats from Dhantala and sent them to Ranaghat for rescue work.

38. On 24.9.2000 flood shelters in Kalyani town area were getting flooded and the people had to be shifted to other buildings. One trawler was used for rescue operations in Kalyani Central Park. Relief materials had reached the municipality and 41,000 people had been sheltered in Kalyani Sub-division. The entire Chapra Block was inundated by flood water. Families of Block officials were shifted to the Panchayat Samiti building. Neither food nor drinking water was available. People were rescued by speed boats or by the military. A rescue boat had capsized at Nagendranagar near Nabhadham in Krishnanagar. Another rescue boat was sent immediately to tackle the situation. Two teams of 10 personnel under one Inspector were deployed for rescue operations in Kaliganj since 22.09.2000. Three teams were kept for rescue at Krishnagar. DM Nadia personally rescued many people in Krishnagar town using an army boat.

39. On 25.9.2000, one launch was sent from Kolkata for rescue operation at ISKCON in Mayapur. About 50,000 men and livestock were stranded at Dakshinpara of Hanskhali block on 25.9.2000. The rescue operation was delayed for want of speed boats/launches and failure of communication network.

40. In Krishnagar the Divisional Commissioner took considerable pressure off the DM so that he could concentrate on rescue and relief measures by meeting the political parties who frequently turned up in strength to press demands. As he had been posted as ADM in Nadia for a couple of years in the past, most of the political leaders knew him. When they saw him present in the DM’s office chamber, the decibel level of their voices dropped and they quickly took leave saying that since the Commissioner was familiar with the district, they were sure matters would be well taken care of. After several such encounters the DM developed a feeling that the Commissioner had taken over the running of the relief measures and frankly conveyed this to him. Thereafter the Commissioner withdrew from meeting the deputationists and restricted himself to going round the town to check on how the waters were receding and whether the markets were
limping back to normalcy. After the Finance Minister and the Deputy Chief Minister visited Krishnagar, the former told the Commissioner that he was needed to coordinate relief supplies from South 24 Parganas and Howrah to the flood-affected districts and should, therefore, return to Calcutta. As road communications were still not restored, the Commissioner returned by helicopter. He arranged for supply of “hogla” (used for making temporary shelters) from Howrah, of Sal poles from Midnapur and Birbhum and manpower, launches and material from South 24 Parganas.

Murshidabad:

41. In Murshidabad District, similar search and rescue operations continued from 19 to 25.9.2000 in the entire district covering 26 Blocks and 7 Municipalities. The DM who had just joined the district on 6.9.2000 was yet to bring his family and belongings. So he got his leave sanctioned from the Divisional Commissioner on 17th September for the purpose. The next morning, with his vehicle ready for departure for Kolkata and with the Divisional Commissioner’s permission to leave headquarters in his pocket, the DM sat in his residence office as it began pouring cats and dogs from early morning. His intuition told him not to leave headquarters. Seeing the weather, the DM abandoned the Kolkata journey and concentrated on search and rescue works.

42. In the situation that developed, the first casualty was electricity. As water rose precariously in the entire district, electricity poles fell, snapping electricity and where they still stood, electricity had to be switched off as a precautionary measure. With load shedding on, the telephone lines too snapped. So, the DM could not even inform the State Secretariat about the worsening situation. The Commissioner, Presidency Division, was asked by the Chief Secretary in the middle of a meeting he was taking in Barasat (headquarters of North 24 Parganas) to rush to Murshidabad and camp there to guide the fledgling DM in tiding over the floods. The flood situation had turned so grim that the Commissioner could not reach Murshidabad as major parts of the National Highway had got washed away beyond Plassey.

43. Large number of people took shelter on trees. They were later shifted to safer places by boats. Most of them were reluctant and preferred to stay near their own houses in order to be closer to their belongings hoping to recover them early. Machans were made on the trees. Thousands of displaced flood victims took shelter on the high roads, railway tracks and safe school and college buildings.

44. More than forty lakh people got displaced from their habitation. The rescue and relief shelters in high land areas were inadequate to accommodate such a large population. People got stranded for 5-6 days with government aid reaching slowly. Some survived by sharing and some with hunger and desperation. The saucer shaped basin of Hijole was under water for about a couple of months. People had to survive on whatever Government aid could reach the place.

North 24 parganas

45. Due to the saucer shaped low pockets and flat nature of land in the district of North 24-Parganas, it took much time for flood water to recede from the affected areas. Considering the acute situation prevailing in the district, extensive measures were undertaken to cope with the catastrophic flood.
46. A good number of “bheris” [large shallow water bodies for pisciculture] and encroachments like brick-fields were removed in Bongaon, Bagdah, Gaighata, Habra II, Deganga, Baduria, Swarupnagar and Basirhat-1 Blocks during October and November 2000 and certain obstructions were removed to drain out the accumulated water. Government boats, country boats and a good number of mechanised boats and launches were deployed in flood affected areas for rescue and relief operations. NGOs played an effective role in relief operations in addition to the panchayats and government machinery.

47. Search and Rescue work was a big challenge under such situation because:

- The flood was rapid and from all directions, not only from the river but also from agricultural fields. The breach along embankment was sudden.
- The onset was at night in many areas, thereby being more devastating and destructive.
- There was no warning. The meteorological reports, water release reports etc were neither adequate nor timely enough for proper forewarning.
- Excessive rain in a short duration and instantaneous run-off from the river channel led to inundation and flooding.
- The community was not prepared to tackle such a situation because of the suddenness of the disaster and lack of proper planning.

RELIEF & REHABILITATION MEASURES

Nadia

48. There was demand for foodgrains from all corners, but the district did not have enough stock. The Divisional Commissioner recalled from his tenure as ADM here in 1975-77 that there was an FCI godown at Bhatjangla. As advised by him district administration requisitioned the stocks on 20.9.2000 and despatched 967 MT of rice to the affected Blocks before the roads got cut-off. However, Kaliganj Block, where the river water had entered first, remained unapproachable. The Kalyani FCI godown was also requisitioned and the available foodgrains used for relief purpose.

49. On 20.9.2000, Tehatta and adjoining submerged areas required dry food and food grains. Two trucks carrying relief material bound for Murshidabad could not reach because the road condition was very bad. Out of seven trucks bound for Krishnagar only two trucks had reached carrying relief materials.

50. The BDO, Krishnagar–1 had kept 5 MT of special GR[gratuitous relief] rice which he distributed among the flood victims with the help of the Panchayat Samity and Gram Panchayats. While no allotment of relief materials was coming through from the district, he held a meeting with the Sabhapati and the Karmadhyakshas of the Sthayee Samities and proposed to use the Mid-day meal rice in stock for relief purpose and to replace it as and when foodgrains were allotted by the district. At his behest it was also decided to purchase dry food and build temporary shelters by local arrangement, the payment for which would be made from the Panchayat Samity’s own fund if the district failed to allot sufficient fund. The BDO lifted 10 MT *chira* (parched rice) and 2 MT *gur* (molasses)
from a wholesaler and distributed to the flood victims. He also contacted a local bakery and persuaded the owner to supply bread for at least two days on condition that payment would be possible only if the district allotted fund. Thousands of flood victims had taken shelter in and around the office campus. With the help of Dr. M.N. Roy, Secretary, St. John’s Ambulance, he started a gruel kitchen at the block office from 23rd September. Everyday about 5000 flood victims were served cooked food. So, while there was unrest all over the district, relief work continued in the block smoothly. Allotments of food grains and other relief materials started coming from the next day and the food crisis got averted.

51. The Additional District Magistrate (General) Nadia took two trucks loaded with chira and proceeded to Nakashipara on 21st September at grave personal risk. The district administration also tried to approach Krishnagar–Karimpur Road by tractor, but failed. On 22.9.2000, four trucks carrying tarpaulins bound for Krishnanagar from Kolkata could not move beyond Jatrapur in Hanskhali Block due to water-logging.

52. The Secretary, Indian Red Cross Society, distributed chira & gur to 530 families in Krishnagar town. Ramkrishna Mission, Belghoria of North 24 Parganas District performed relief work in Chakdah. NGOs like Sathi Club, Stationpara (Krishnagar) arranged to feed about 400 to 450 people and kept in touch with the district administration to provide them with relief materials in order to enable them to serve the flood affected people.

53. On 24.9.2000, arrangement was made for dropping of food packets at Seemanagar (sector hq of the BSF), Maluapara and Kadipur for marooned BSF personnel. On 26.9.2000, air dropping of dry food was arranged in Ranaghat-1 Block at Habibpur Hospital Ground, Parkamgachi Primary School, Noapara G.P Office, Kalinarayanpur Rly Station. In case of Ranaghat-2, the air-dropping points were Aranghata Railway Station, Bankimnagar Railway Station, Halalpur Rly Line, Dhantala Bazar, Panikhali More and Hazarpur. The helicopter sorties continued till 29th September covering Krishnanagar-2, Nabawip, Krishnaganj, Santipur, Ranaghat, Hanskhali Blocks, Birnagar town etc. The Lion’s Club International informed that they had helped 162 beneficiaries at Singhdarja and 251 beneficiaries on 25.9.2000 near Judge’s Court, Krishnanagar. 48 MT of Mid-day Meal rice was distributed to affected people by Nakashipara Block Office. On 25.9.2000 relief articles were reported to have reached Krishnanagar-2 Block and had been distributed to all GPs and rescue centres.

54. On 26.9.2000, three launches had sailed from confluence of the Churni river for Krishnagar. Six launches from Jagaddal in North 24 Parganas sailed for Krishnagar, namely M.V. Karunamayee for Debagram, M.V. Dui Bhai for Krishnagar (carrying food stuff), M.V. Dolphin for Santipur (carrying food stuff), M.V. Manindra for Hanskhali (carrying food stuff), M.V. Viswajayanti for Krishnanagar (carrying medicines) and M.V. Anuradha for Debagram (carrying food stuff).

55. On 5.10.2000, the water level of Bhagirathi was 9.50 m at Swarupganj and of Churni was 9.60 m at Hanskhali. The entire district administration was then totally engaged in relief operations. On 9.10.2000, ten trucks of hogla [for making temporary shelters] came from Howrah. The Puja holidays stood cancelled. The service to the flood ravaged virtually became the worship of the Goddess.
Murshidabad

56. As Murshidabad lost physical and telephonic contact with the outside world, food and civil supplies became the first concern of the district administration. There was a godown of FCI at Khagda Bazar but that was locked and the District Manager FCI was away in Kolkata. There was no way he could return, except by helicopter. The DM had to decide whether he should break open the godown that housed more than 9,000 MT of rice and wheat. As public pressure mounted and as more and more ration shops began to go underwater, he took the decision to have the godown’s lock broken and inventorised the entire quantity of the foodstuff available. He also requisitioned the BSF for round-the-clock vigil over the only repository of food in the district.

57. Drinking water soon became scarce. With electricity gone for several days, the pumps of the Public Health Department had not pumped water into the overhead tanks. Despite so much water all round, the people were thirsty. The DM turned to the Bhagirathi Milk Union and its milk packaging unit was put to ingenious use by filling potable water in plastic pouches. The people of Berhampore town were given milk pouches containing water. The public did not mind.

58. With the telephone system snapping completely, there was a complete information blackout. The situation was worsened by a national strike call given by BSNL engineers. While it continued to rain blindingly, there was no more information coming in from any quarter about the water discharge form the Farakka barrage, the Messanjore dam or the Tilpara barrage. The only communication was through police wireless. The Station Director, Berhampore Radio Station allotted five minutes on each day to the District Magistrate Murshidabad to address the people of the district regarding rescue and relief measures undertaken.

59. As one colony after another started to go under water, news was received that Farakka barrage authorities had decided to release huge quantities of water into Bangladesh. The DM knew that rivers did not respect national boundaries and the discharge would flow south into the district besides from Tilpara barrage from the West and Farakka barrage from the North! The DM ordered the SDPO Jangipur to tell the General Manager to desist from doing what he proposed or else he would be taken into custody. The desperate threat had the intended effect. The Farakka barrage authority decided that discretion was the better part of valour. In the process, hundreds of lives were saved in Suti I & II and Shamsherganj Blocks.

60. Supply of LPG and Kerosene was cut off to the District during the flood. Two LPG loaded trucks on their way to Siliguri were stranded outside the town. Those were promptly requisitioned and six hundred odd LPG cylinders were then rationed from the Collectorate. Priority was given to the NGOs who were running community kitchens in relief camps. Those NGOs were allotted rice, wheat, pulses and LPG/kerosene by the district administration free of cost.

61. After day six of the floods, it was time to coordinate the relief and reconstruction phase. Each day coordination meeting was held with the departmental officials, NGOs and others to take stock of the situation and to chalk out strategy for the following days. The district Minister also attended the meetings. With the worst over, it was time for the dignitaries and senior officials to arrive to take stock of the situation and assist in the reconstruction effort.
North 24 Parganas

62. Extensive relief measures were undertaken in the district of North 24 Parganas. 3564 rescue camps were set up at various places all over the district in which 4, 44,699 people took shelter. Dry food like chira & gur and cooked food were distributed to the flood victims. Baby food, purchased from Ichhamati Milk Federation, was distributed in the relief camps for the children from time to time. During the entire flood period, 22,400 MT of rice was distributed among the people. The Food & Supplies Department and the Food Corporation of India failed to supply such huge quantities of foodgrains within a short period. The matter was discussed at all levels and purchase was made from the open market observing necessary formalities of the tender rules. The rate of the rice of the Food & Supplies Department was Rs 11.90 per kg and allotment of fund was made by the Government accordingly but it could be purchased from the open market @ Rs 10.50 per kg with the approval of the state government although the quality of rice was not compromised. Such action also saved public funds.

63. Bongaon and Bagdah Blocks could not be accessed from the district. The relief operation there had to be organised via Nadia District at Bibhutighat on the river Ichhamati. Hogla and Sal poles were distributed to flood victims for rehabilitating them. The Sal poles were procured from Bankura, Birbhum and Midnapore by deputing Deputy Magistrates.

64. House Building Grant (H.B. Grant) distribution: Millions of houses had got damaged or destroyed in the affected districts. Enquiring all the cases and distributing HB Grant was an uphill task for the Block Development Officers in rural areas and Sub-divisional Officers in the urban areas. A joint inspecting team first conducted the enquiry and a beneficiary list was prepared. This list was hung up in the Gram Panchayat and BDO offices for three days to obtain claims and objections. Those claims and objections were disposed of by the SDO/ BDO as the case might be and final list was prepared in M-form (see G.O. in annex - I). The number of beneficiaries being huge, the distribution was done in a staggered manner under police security. The whole process took at least three months’ time. Normal development works could not be done during this period because the task was huge and there were numerous complaints. Those whose houses were fully damaged got two thousand rupees each while others whose houses were damaged partly got rupees one thousand each.

65. A brief statement of relief measures undertaken in the three districts is as follows:

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Items</th>
<th>Nadia</th>
<th>Murshidabad</th>
<th>North 24 Parganas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>House Building Grant</td>
<td>Rs 4155.70 lakh</td>
<td>Rs 5000.00 lakh</td>
<td>Rs. 3373.37 lakh</td>
</tr>
<tr>
<td>2</td>
<td>Ex-Gratia Grant</td>
<td>Rs 161.70 lakh</td>
<td></td>
<td>Rs. 3.29 lakh</td>
</tr>
<tr>
<td>3</td>
<td>Special G.R (Rice)</td>
<td>13,960 MT</td>
<td></td>
<td>22,400 MT</td>
</tr>
<tr>
<td>4</td>
<td>Flood Contingency</td>
<td>284.91 lakh</td>
<td>500.00 lakh</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Poly Tarpaulins</td>
<td>1,26,119 Nos.</td>
<td>1,80,000 Nos.</td>
<td>2,66,936 Nos.</td>
</tr>
<tr>
<td>6</td>
<td>Clothings</td>
<td>3,52,100 Nos.</td>
<td></td>
<td>1,12,168 Nos.</td>
</tr>
<tr>
<td>7</td>
<td>Children Garments</td>
<td></td>
<td></td>
<td>65,415 Nos.</td>
</tr>
<tr>
<td>8</td>
<td>Blankets</td>
<td>3,24,145 Nos.</td>
<td></td>
<td>1,77,930 Nos.</td>
</tr>
<tr>
<td>9</td>
<td>Hogla</td>
<td>74,388 Nos.</td>
<td></td>
<td>40,890 Nos.</td>
</tr>
<tr>
<td>10</td>
<td>Lungi</td>
<td></td>
<td></td>
<td>15,150 Nos.</td>
</tr>
<tr>
<td>11</td>
<td>Sal Poles</td>
<td></td>
<td></td>
<td>1,93,959 Nos.</td>
</tr>
</tbody>
</table>
ASSISTANCE OF ARMY AND AIR FORCE

Nadia:

66. On 20.9.2000, the submerged areas of Kaliganj Block required the assistance of Military and Paramilitary Forces and even air dropping was felt necessary. The 15th Rajput led by a Major reported on 22 September with two boats. It was directed to proceed towards Kaliganj. However, they could not proceed beyond Dhubulia on the first day. They later helped the civil administration in Nakashipara and Kaliganj Blocks. Another column led by a Lieutenant also reported on 22 September late at night with three boats. They were asked to cover Nabadwip, but were not very effective. One of the boats was deployed within Krishnagar town for rescue operations in view of the influx and rise of water. More than 500 people were rescued by them in the town. Another column of 9th Engineering Regiment was deployed for rescue and relief operation under Ranaghat-1 and Santipur Blocks under the leadership of a Colonel. The Army was also deployed in Kalyani Sub-division. The biggest contribution of the Army was the construction of a Bailey Bridge at Paglachandi on NH 34, which restored the road link to Berhampore. The Commissioner, Presidency Division, instructed the ADM (Dev) to requisition the petrol pumps for keeping reserve stock of petrol and diesel and also for filling army vehicles.

67. Air dropping of foodstuff was started by the Air Force from 23 September. On the first day, Tehatta-2, Kaliganj and Nabadwip were covered and subsequently Nakashipara, Tehatta-1, Chapra, Hanskhali, Ranaghat-1 and 2, Karimpur-2, Santipur, Krishnagar-1 and 2 were covered. However, all the BDOs had not been informed about the plan of air droppings. BDO Krishnagar–1 came to know only after local people came with an air-dropped bag. It contained food items, life saving medicines and even snake anti-venom. Most bags were carried away by the local people. The BDO feared that it would be disastrous if the people, most of whom were illiterates, consumed the medicines without consulting a doctor or paramedic. So he sent his teams to trace the bags in the villages where air-dropping was done, but not much success could be achieved. Air dropping was very effective in Nakashipara and Kaliganj. Since most of the Blocks could be reached from 27 September, the intensity of air dropping was reduced and subsequently stopped by 30.9.2000.

68. The Divisional Commissioner asked the District Relief Control to contact the Commandant of the local SSB Unit, who had contacted him to volunteer for rescue work. They were accordingly requested and were of great help in rescuing and feeding people. The SSB informed that from 22 September, 3 teams of one inspector, 2 S.I.s and 25 officials of other ranks were deployed under the BDO Ranaghat-1 and two teams of 10 personnel under one Inspector in Kaliganj for rescue operations and distribution of food. Three teams were kept for rescue at Krishnagar. Three Medical Teams were also kept at Krishnagar.

Murshidabad

69. The army was requisitioned by the State Government, five days after the deluge started. While the army officers got rooms in the Youth Hostel, the Jawans had to make room in the corridors. After identifying the worst affected spots, the Army made efforts to get there. However, not much headway could be made, as the army trucks were not
able to reach beyond three km from the district headquarters. Trying to reach marooned persons twenty km away by boat was dangerous as the water current was too fast for the small speedboats of the army. Another problem encountered was communication. Most of the army personnel did not know the local language, so interpreters had to be found, along with wireless sets. Further, the army units could not be used more intensively as their operations had to be conducted in teams; their teams could not be broken up beyond a certain minimum. However, the army teams finally did manage to reach the worst affected areas on the third and fourth days and eventually rendered sterling service in saving lives and reaching essential supplies.

70. News came over the police wireless that the State Government had also requisitioned the air force helicopters stationed at Panagarh airbase in the adjacent Bardhaman district. The ADM Bardhaman wanted to know the latitudinal and longitudinal coordinates of the worst affected areas for dropping supplies. Where were they to be found? The DM sat in candle light in the Control Room and poured over maps, putting to use the geography lessons learnt in class 11 and marking out the map coordinates of the worst affected areas. It was a pretty accurate assessment, it turned out: every aerial drop—it was later learnt–had fallen right into the most affected areas.

North 24 Parganas:

71. In the district of North 24-Parganas the Army played an effective role in rescue and relief operations. Five columns were deployed in Bongaon and Bagdah. They used Boat Assault Universal Type (BAUT) for relief operation. Each BAUT could carry 400 to 500 Kg of materials apart from army personnel.

72. From 28.9.2000 to 5.10.2000, the units of 12 Mahar, 18 Mahar, 199 Field Unit and 235 IWT and 11 Garhwal carried out rescue operations in Bagdah and Bongaon areas. One army doctor with 12 Mahar Unit and Medical Officers deputed by ACMOH Bongaon accompanied these units. The army unit reported to Gaighata Block on 29.9.2000 with three boats. 51 Jawans were deployed in the area for rescue and relief works.

73. In Basirhat Sub-division, the Army columns were deployed at different points of Bithari, Hakimpur, Saguna, Balti Nityanandakati, Swarupnagar-Banglani Gram Panchayats under Swarupnagar Block from 3 to 7.10.2000 with four speed boats for rescue and relief operations. One BSF speed boat was deployed from 29.9.2000 to 10.10.2000. Besides, 29 mechanized boats were also deployed at various points. The Army with three speed boats and the BSF with three boats and 4 four mechanized boats operated at Chatra, Chandipur, Ramchandrapur, Aturia, Nayabastia from 1 to 6.10.2000.

PARTICIPATION OF LINE DEPARTMENTS

74. On 19.9.2000, the Executive Engineer, I & W [Irrigation & Waterways], Nadia alerted the District Magistrate about the rising water level at Swarupganj and Prachin Mayapur. He arranged for gunny bags on 20.9.2000 to protect the breach in Gokhurapota Bundh under Chapra P.S. He regularly kept the district office informed about the position of river water level at different Gauge Reading Stations. On 21.9.2000, he informed about the overflowing condition of Bhagirathi and Churni rivers. Thereafter, the communication broke down due to power failure and not much information could be
received from him. The District Manager, Telecom informed that there was no electricity in the Telephone Exchange under Santipur Division. Diesel was about to be exhausted and in that case Ranaghat and Santipur Exchanges would become defunct as the generator would become non-functional. Nothing could be done about it, as the flood water was flowing above the danger mark and the transformer was submerged. At Krishnaganj Block its RT set and telephone ceased to function on 21.9.2000.

75. BMOH Kaliganj sought for emergency medicines for flood victims on 20.9.2000. Three medical teams were engaged in service at Krishnagar. One team was engaged for Veterinary purpose near Krishnagar Rajbari area on 26.9.2000. Several search medical teams worked in the entire district. The launch Jayantimata reached Nabadvip with medicines on 28.9.2000 and could not move beyond the railway bridge over Jalangi to Kadamtalaghat as the bridge obstructed her mast. The Sub-divisional Officer (Sadar) requisitioned a few country boats and medicines were unloaded from the launch to those boats which were also used to carry drinking water for the crew. On 28.9.2000, the Assistant Engineer, PHE being equipped with tubewell materials at Kadamtala Ferryghat, went to Tehta-1 Block with the Minister of State, L & LR Dept.

76. The Divisional Engineer WBSEB played a significant role in restoring the discontinued power supply by re-routing and modifying the lines. Power was restored to the Telephone Exchange to reinstall telephone communication system. Trunk Lines were extremely difficult to get through. The Divisional Engineer, WBSEB on 29.9.2000 arranged two transformers of Dignagar Bazar functioning. The work for restoring power in order to resume water supply through Public Health Engineering Department to Fulia-Santipur line was in progress. They arranged for restoration of power to four Public Health Engineering Department Stations and a hospital by extending power from Fulia. The Municipality was able to restart their water supply system. The power supply to Kalyani Sub-division was also restored by SEB and the Municipality was able to maintain water supply.

77. On 30.9.2000, the CMOH Nadia supplied Halogen tablets and bleaching powder for flood victims at the shelter in Santipur P.S Campus. River water started receding and on 1.10.2000 buses plied between Krishnagar and Santipur/Nabadvip Rail gate/Panighata/ Debagram. Train services resumed from Sealdah on 4.10.2000. During the crisis period, there were visits to the District by the Deputy Chief Minister, the Finance Minister, the Panchayat & Rural Development Minister, the Higher Education Minister, the Relief Minister and the Municipal Affairs Minister. The School Education Minister camped at Krishnagar for three days and the MOS, L & LR Department moved to the flood affected areas in Tehatta Sub-Division. The Secretary, Department of Municipal Affairs (ex-DM Nadia) and the Director of Local Bodies (ex-SDO Ranaghat) camped at Ranaghat for nearly ten days and monitored the relief operations in Ranaghat and Kalyani Sub-Divisions as both of these places were cut off from the District Headquarters till 1.10.2000 & the SDO had a nervous breakdown. At the behest of the Divisional Commissioner, the district administration of South 24 Parganas sent a team of officers and a launch to Ranaghat to help continue relief operations uninterruptedly.

78. In North 24 Parganas, arrangement for supply of water, sinking and re-sinking of tube wells, raising of platform of tubewells in the flood affected areas was done by the Public Health Engineering Department. The Health Department was so alert that not a single flood victim died in the district due to any water borne diseases. Standing crops in vast areas of 652 mouzas were damaged. As soon as the flood water receded, the
Agriculture Department distributed seed mini-kits among the affected farmers. The officials of Animal Resource Development department also effectively performed the activities of their Department to prevent any cattle disease.

TAPPING CIVIL SOCIETY

79. In Murshidabad a delegation of the Citizens Forum complained about blackmarketing by some unscrupulous businessmen. The DM requested them to help by drafting a strict warning in the vernacular, which could be broadcast over loudspeakers. They felt elated. Not only did they draft the entire announcement, they even volunteered their services for announcing it over loudspeakers throughout the town during the following week. The DM also appealed to the public over the radio, to be vigilant against blackmarketeers and turn in any trader who sought to take advantage of the situation. He also got assistance from the Cooperatives running cold storages to offload their entire stocks into the market, as district was cut off from the rest of the state. The result: potato and onions were available at prices lower than those before the floods. There was no black marketing in Murshidabad during the worst floods in its history. Also, there were no food riots. Many NGOs helped by running community kitchens in relief camps. The ration was supplied by the DM.

LAW AND ORDER MAINTENANCE

80. In Nadia District police posting was required at Kaliganj Block Office on 19.9.2000 when the office was partly immersed. The OC, Nakashipara P.S. was gheraoed by an irate mob seeking protection from theft of their valuable belongings and against other illegal activities by unscrupulous persons. Police had to ensure that miscreants did not interrupt the flood protection measures taken by I & W and movements of relief articles. Many block offices were attacked by irate mobs and relief articles were looted.

81. Hoarding was kept in check by daily visit of the SDPO and DSP (Hq). DEB officials were deployed and surprise visits of the SDOs were made to keep the prices of essential commodities checked till the situation turned normal.

82. Due to the extremely grave nature of the calamity and also due to the fact that for several days people had nothing to eat and no water to drink, the law order situation of the district had been affected. There were reports that public offices were being attacked and godowns were being looted. There had also been incidents at Debagram on 24th and at Krishnanagar on 28th September 2000 where the police had to fire in the air to disperse the rampaging mob.

83. In Krishnagar-1 Block, on 24th September news came that local people had looted relief materials at Ruipukur GP. The BDO personally went to the spot with police escort. Soon a big mob gathered. When the BDO asked them why they were creating unrest, they complained that the GP authority was discriminating in relief distribution. The supporters of other parties were not being given enough relief. When the BDO enquired about this, the Pradhan was unable to give any satisfactory reply. He also came to know that the materials were actually hidden by the people and not looted. So he first asked the people to recover the looted relief materials within 30 minutes and then sit for a discussion. When all the materials came back within 10 minutes, he held a meeting with the Pradhan, GP Members and representatives of the dissatisfied people. He ensured that
proper distribution of relief be done involving representatives of all parties to maintain transparency.

84. On 28th September a local leader ‘Thanda’ had been arrested by the Police in Krishnagar–1 Block on the basis of a complaint lodged by a Pradhan of Gram Panchayat and the Sabhapati of the Panchayat Samity. This was not known to the BDO who was extremely busy with relief works and passed seven sleepless nights, not even getting enough time to have his food. Thanda had become very popular among the people as he had worked day and night in the floods and saved many lives. Soon a mob gheraoed the BDO and the Sabhapati. They demanded the release of the person. The BDO explained that he had nothing to do with the arrest of Thanda. But the mob was adamant. They said, “Since he had been arrested from your office campus you have to take responsibility and ensure his release.” The DM had deputed a senior Deputy Magistrate in every flood affected Block to aid and advise the BDO and look after the law & order situation. The magistrate who was deputed for Krishnagar–1 was seated beside the BDO. However, he silently left the campus in this milieu before the BDO could realise. The BDO tried to contact the SDO but he was not available. So he rang up the DSP and apprised him of the situation and requested him to take necessary action immediately. He also requested the DSP to release the person with a warning, if possible, because the mob was becoming violent. Instead, the DSP sent a police force under the leadership of the Inspector-in-Charge (IC), Kotwali PS.

85. Seeing the police without Thanda the mob started rampaging. They also manhandled the Sabhapati. The police ran for life into the office building, locking the collapsible gate behind them. The mob ransacked the campus, destroyed the garden, the gruel kitchen, damaged vehicles and everything that caught their sight. The BDO sent many SOS to the District Control Room. He talked to the ADM (G) also requesting him to do something. But no help came through from the district headquarters situated less than 2 km away although the mob kept rampaging for more than an hour. The IC was at his wits end. The mob was about to set the block office on fire. The BDO telephoned his wife and told her about his situation. He told her to pray to the Almighty. Then he rang up the district control again. This time he took courage to tell the ADM to hand over the phone to the DM. He informed the DM about the developments and requested him to do something before it was too late. The mob once again became violent. Finding no way out, the BDO ordered the police to fire. The police fired a few rounds in the air when the mob dispersed. Soon the DM and the SP arrived with a large contingent of police force and two fire tenders. By that time the mob had fled. The BDO was totally dejected and so were his staff. He asked to himself, “Are these humans to save whom I and my people are working round the clock?” The DM took the BDO with him to the Divisional Commissioner who had camped at the Circuit House. A few caring words of the Commissioner recharged the BDO. He resumed the relief work from next morning again.

86. The entire Nabadwip Block and the Nabadwip Municipality were inundated. These offices were temporarily shifted to the District Headquarters due to apprehension of breach of peace. Police protection was arranged at the time of dispatching the relief materials. Two markets in Krishnaganj were looted.

87. In Murshidabad district, dacoits from Beldanga used to come in motorised fishing boats and vandalized the households. Police had to be on strict vigil to check all such activities. The Civil Officers too were under tremendous pressure of the thousands of flood victims asking for relief. The law and order maintaining authorities as well as the
common public were vigilant against the black marketers and unscrupulous businessmen who sought to take the advantage of the situation.

88. In the district of North 24 Parganas measures were undertaken to curb the rise in prices of essential commodities. Officers of Food & Supplies Department, Agriculture Marketing and General Administration including Police personnel kept a vigil to prevent hoarding of articles.

89. Review meetings with the officials of the line departments, police personnel, Karmadhakshyas of the Zilla Parishad used to be held daily under the guidance of the Sabhadhipati, District Magistrate and Superintendent of Police. Finance Minister and other ministers of the State Government also very frequently used to attend those meetings. One Addl. District Magistrate, Addl. Superintendent of Police and some other officers in the rank of Deputy Magistrate were deputed to the more affected blocks like Bongaon, Bagdah and Gaighata for supervision of the rescue and relief operations and also to maintain the law & order situation. There was no untoward situation during the entire period.

DISPOSAL OF CORPSES and Medico-Legal procedure

90. Human lives lost in Nadia District were 231 while the figure for Murshidabad was 600. In addition, 18 persons were found missing in Nadia District. As reports of corpses floating in water came in, arrangements had to be made for their retrieval and disposal. Suitable high land was not available for burial. Moreover, there was scarcity of scavengers. Nearly hundred scavengers from the neighbouring Birbhum district were brought to Kandi Sub-division of Murshidabad. But such was the stench from the corpses that even the hardened scavengers could not approach the bodies without throwing up or falling sick. Country liquor had to be ordered from wherever it was available to alleviate the misery of the scavengers who did a good job thereafter.

91. As the death due to flood is an unnatural death, the normal procedure for UD cases has to be followed.[See Annex – I] But during those odd days of severe flood, lodging FIR at Police Station and sending the dead bodies to the concerned hospitals for post-mortem reports were hardly possible. Considering the difficulties, the Relief Department waived such procedures for fetching post-mortem reports and police reports for granting ex-gratia assistance to the next of kin of the deceased during the floods of 2000. Instead of those reports, the next of kin of each deceased had to collect death certificate from the concerned G.P. Pradhan with the signature thereon of two persons of the locality who knew the deceased and had seen the dead body.

92. In North 24 Parganas District the total number of human lives lost was 47. The dead bodies could be disposed of very quickly with the help of the local PRI Bodies. In 42 cases post-mortem of the dead bodies could be done as the villagers were aware of the procedure. For the other 5 cases the advantage of the revised order of the government, in which formalities of post-mortem were relaxed, had to be taken. The next of kin of all the 47 flood victims received Rs. 70,000 as ex-gratia grant (Rs.20000 out of state exchequer and Rs.50,000 from Prime Minister’s Relief Fund).
RECONSTRUCTION

93. The Deluge 2000 had left behind destruction all around. Massive reconstruction work was taken up by all three districts with active cooperation from all the Line Departments. Electricity was restored, roads, culverts and bridges were reconstructed or repaired as necessary, and embankments were strengthened. Basic services were restored in record time.

94. A unique experience occurred in Murshidabad. A political leader came from Bhagwangola and informed the DM that the Kalukhali embankment cum road had, with a deafening roar, given-in to the incessant dash of floodwaters. Several dead bodies were underneath the mud, he said. Four blocks of the district were now completely inaccessible. The DM availed of the only effective transport, a tractor, and waded through waist-deep water to reach the spot. The elderly people said that this was the basin of the mythical river Saraswati and that it was a mistake for the government to have built the embankment cum road diagonally across the basin. A new link road had to be built and fast. The best civil contractors were taken to the spot by the DM and told that they had to build a road by the side of the railway track so that road communication could be restored as quickly as possible. Work started without any tender and written work order on the basis of the DM’s verbal assurance that all such work would be regularised later on. Everyone joined in. Some agricultural plots, over which the road was aligned, were readily sacrificed by the farmers in the larger interest. Generators were installed and work continued in three shifts round the clock. Fourteen days later, the road was ready and Kalukhali’s reconstruction became a symbol of the resilience of the people of Murshidabad district. A front-page editorial entitled “Shabash Kalukholi” gave the embattled district administration officials the much-needed fillip.

95. Though the disaster had left a permanent scar on the memory of the people, life slowly progressed towards normalcy.

APPENDIX:

Annex – I: G.O.s for Ex Gratia Grant

Annex – II: Maps of Murshidabad, Nadia and North 24 Parganas showing flood affected areas in 2000 vis-à-vis normal river course

Annex – III: Teaching Note

Acknowledgement:
To write this Case Study inputs have been taken from many officers who faced the disaster and managed it. Noteworthy among them are Shri Vivek Kumar, IAS, Shri H.K. Dwivedi IAS, Shri Dipankar Chowdhury WBCS(Exe.) and Shri P. Bhattacharya IAS.
Annex – I

1. G.O.s for Ex Gratia Grant:

Government of West Bengal
Relief Department,
Writers' Buildings, Kolkata.

No. 3677(17)-F.R.                                      Dated, Calcutta, the 29th August, 1990.

From: The Secretary to the Govt. of West Bengal

To:
1) The District Magistrate

2) Director of Relief, West Bengal,
   103A, S.N. Banerjee Road, Calcutta-700 014

Sub: Payment of ex gratia grant to the legal heir(s) of the deceased person in the cases of death due to accidental fire.

Sir,

Government has for sometime past been considering the question of payment of ex gratia grant to the legal heir(s) of the person(s) who suffer loss of life due to accidental fire. I am now directed by order of the Governor to say that the Governor has been pleased to accord administrative approval and sanction to the payment of ex gratia grant in favour of the legal heir(s) of the persons, who suffer loss of life due to accidental fire, as a token of Govt. sympathy to the bereaved family @ Rs. 5,000/- per death case irrespective of the age and income of the deceased.

The sanction is subject of the following conditions:

a) The cases to be considered under this scheme should not come under Person Accident Insurance Security Scheme, and vice versa.

b) The cases of self-immolation, suicide or other criminal offences should not be covered under this relief programme.

c) Enquiry should prove beyond doubt that the accidental fire took place purely by accident, and not as a result of deliberate violation of any civic rules of laws like storage of incendiary materials causing fire in the premises in and around which the victims lived, etc.

d) The deceased must have been the citizens of India beyond doubt and inhabitants of this state.

e) The legal heir(s) must be the citizens of India beyond doubt.

For the purpose of expeditious allotment, sanction and disbursement of such assistance within the shortest possible time I am further directed by order of the Governor to say that immediately after incidence of such death necessary enquiries should be made by the local officers of this Deptt. in the district and a report along with the application for ex gratia grant from the legal heir(s) sent by the Dist. Authority to this Deptt. within a fortnight with necessary details about the deceased person(s) and the concerned legal heir(s) in the proforma prescribed in the case of sanction of ex gratia payment on death due to natural calamity, duly recommended by the concerned Tran-O-Kshudra Silpa Samity attached to concerned Gram Panchayat Samity, concerned B.D.O. (in the case of rural area) and Chairman/Councillor of concerned Municipality/ Municipal Corporation and/or concerned authority of the notified area in the case of urban area). In the case

(33)
of Calcutta such enquiry should be made by the Deputy Director of Relief and specific proposal sent to this Deptt. along with the proforma aforesaid duly filled in, together with recommendations of the D.D.R., Calcutta and/or D.R.W.B., for consideration of this Deptt.

This order takes immediate effect.

This order issues with the concurrence of Finance Deptt. vide their U/O No. Gr.-E211 dt. 20.8.90

Yours faithfully

Secretary.

No. 3677/l(25)-FR. dt. 29.8.90

Copy forwarded for information to the:

1) Accountant General, WEst Bengal, 18, Rabindra Sarani, Cal.
2) commissioner, Presidency/Jalpaiguri/Burdwan Division.
3) Subhadhipati of Zilla Parishad.
4) Financer (Budget) Deptt.
5) Finance (Gr. E.) Deptt.
6) Budget Cell of Relief Branch.
7) Jt. Secy., Welfare Br. of the Relief & Welfare Deptt. of this Govt.

E.R.O. & Ex-Officio
Assistant Secretary.
Government of West Bengal
Relief Department,
Writers' Buildings, Calcutta.

No. 12918(40)/FR RL/N/VIII/4P-3/95

Dated the 2nd November, 1995.

From : The Joint Secretary to the Govt. of West Bengal.
To : The District Magistrate,

Sub : Payment of Ex-gratia Grant in the cases of death due to natural calamities, such as Flood, Cyclone, Accidental Fire etc.

Sir,

In partial modification of para-1 of this department G.O. No. 3939 (36) F.R. dated 5.10.90 and No. 3677 (38) F.R. dated 29.8.90 read with this Department No. 8822 (38) F.R. dated 28.7.93, I am directed to say that the Governor has been pleased to sanction the raising of the rate of Ex-Gratia payment at the rate of Rs. 20,000/- (Rupees Twenty thousand) only as per death case in place of Rs. 10,000/- (Rupees ten thousand) only with effect from 26.9.95.

2. This has the concurrence of the Finance Department of this Govt. vide their U/O. No. 377 (Gr-E) dated : 26.10.1995.

3. The Accountant General, West Bengal and Pay and Accounts Officer are being informed.

Yours faithfully,
Sd/-
Joint Secretary.
Government of West Bengal
Department of Relief
Writers’ Buildings, Kolkata-700 001.

No. 1773(40) - FR / RL/O/VIII/8P-2/90(Pt.1) Dated, Kolkata, the 26th Aug. 2002.

From: S.K. Deb, I.A.S.
Joint Secretary

To: 1) The Subahdipati, ___________ Zila Parishad.
2) The Commissioner, ___________ Division.
3) The District Magistrate, ___________
4) The Director of Relief, West Bengal,
   87A, S.N. Banerjee Road, Kolkata-14.

Sub: Payment of Ex-gratia Grant in the cases of death due to natural calamity/Accidental fire.

Sir,

I am directed to say that the question of expeditious sanction and disbursement of Ex-gratia Grant on account of death due to natural calamity / accidental fire within shortest possible time, has been under consideration of the government for sometime past. After careful consideration, the Governor, in partial modification of all the Govt. orders in this regard has been pleased to decide that henceforth the District Magistrate concerned / Director of Relief, West Bengal in case of Kolkata Municipal Corporation area, will administer and sanction ex-gratia grant @ Rs. 20,000/= [Rupees Twenty thousand] only in each death case, to the next of kin of the person who was killed as a result of natural calamity like flood, cyclone, earthquake, tornado, hailsstorm, lightning etc. and anything directly or indirectly resulting from natural calamity, viz. house/wall collapse, drowning, fall of tree, electrocution, etc. or as a result of accidental fire subject to obtaining the following papers/documents and on being satisfied about the genuineness of the case for payment of the ex-gratia grant and observing procedure as laid down in the G.O.s issued from time to time in this regard.

i) Proforma report about the death case with the views of B.D.O. / S.D.O. concerned, to be submitted to the District Magistrate along with a certificate of recommendation from the concerned Pradhan of the Gram Panchayat, Savapati of Panchyat Samity / Chairman of the Municipal Authority / Urban Authority, as the case may be. In case of Kolkata Municipal Corporation area, Dy. Director of Relief will be recommending authority.

ii) Original petition of the legal heir(s) claiming ex-gratia grant.

iii) Police Report in details stating the exact cause and date of death with the officials seal of the concerned police station.

iv) Attested copy of the death certificate.

v) Attested copy of the Post-Mortem Report with the opinion of the Autopsy Surgeon as to the cause of death.

2. The District Magistrate concerned / Director of Relief, West Bengal shall make payment of the ex-gratia grant out of the allotted fund received from this Department for this purpose from time to time.
3. Detailed report about the payment of each case of ex-gratia grant shall be furnished by the District Magistrate concerned / Director of Relief to this department within a month from the date of disbursement of such grant.

4. Unutilised fund allotted by this Deptt. for this purpose shall have to be surrendered before the end of the financial year.

5. All the proposals for the payment of ex-gratia grant already submitted by District Magistrate / Director of Relief to the Relief Department will be disposed of by this department.

6. This order is issued with the concurrence of the Finance Department, vide their U.O. No. Group – E 102… dated…14.08.2002.

Yours faithfully,
Sd/-
Joint Secretary


Copy forwarded for favour of information to:-
1. The Accountant General, West Bengal; 18, Rabindra Sarani; Kolkata-700 001.
2. Finance (Budget) Department; Govt. of West Bengal; Writers’ Buildings, Kolkata-700001.
3. Finance (Group – E) Department; Govt. of W.B.; Writers’ Buildings; Kolkata-700001.
4. Budget Cell of Relief Department; Govt. of W.B.

Joint Secretary
Relief Department
Special G.O. on Ex-Gratia grant for Flood 2000

GOVERNMENT OF WEST BENGAL
DEPARTMENT OF RELIEF

No. 2681(9)-PR
Dated Calcutta the 14th October, 00.

From: Shri S. Kar, IAS,
Joint Secretary to the Govt. of West Bengal

To: The District Magistrates – Birbhum / Murshidabad / Nadia / North 24 Parganas / Hooghly / Howrah / Midnapore / Mald / Bardwane

Subject: Payment of Ex-gratia grant in the cases of death due to Natural Calamity: Relaxation in procedure for Flood 2000.

Sir,

There have been unprecedented floods in September-October 2000 (hereinafter referred to as Floods 2000) in the several districts of West Bengal. To reduce the hardship of the worst affected flood victims, relaxations in certain cases in the procedure for payment of ex-gratia grant to the next of kin of persons dying as a result of the Floods 2000 have been under consideration of the government.

1. I am directed by the order of the Governor to say that the last paragraph of G.O. No. 2233 (17)-PR dated 3rd March, 1994 on the above subject will be deemed to have been substituted as follows insofar as it relates to Floods 2000 only:

2. Accordingly, I am directed to request you kindly to ensure that all of the following papers / documents are furnished along with the proposals relating to ex-gratia grants. Relevant papers and supporting documents must be submitted to this Department for sanction of payments to the bereaved families:

   (1) Proforma report with views of BDO / SDO.
   (2) Certificate of recommendation from the Panchayat Samiti of the concerned Gram Panchayat / Sahadhipati of a Panchayat Samity in rural areas and Chairman of the Municipality in urban areas.
   (3) Original petition of the legal heir / heirs with signature or thumb impression.
   (4) Police Report.
   (5) Post Mortem Report.

...
Provided that in specific cases where no post-mortem has been done before the body has been disposed off, a factual statement by at least two independent eye-witnesses, supported by a certificate from concerned Gram Panchayat Pradhan / Palanpur Taluka Samiti Chairman in rural areas and Chairman of the Municipality in urban areas may be substituted in place of the post-mortem report.

(6) Death Certificate.
(7) Certificate that no proposal has been initiated under the PHASS Scheme.
(8) The recommendation of D.M. / A.D.M. for payment of ex-gratia grant.

Provided that only in cases where post-mortem report as well as death certificate are available, and the district authorities are satisfied about the genuineness of the claim on the basis of documents produced, the District Magistrate will sanction Rs. 20,000 (Rupees twenty thousand only) per death case and disburse the same to the legal heir of the deceased family out of funds to be placed with him for this purpose under intimation to this Department.

This has the concurrence of Finance Department vide U.O.No. Group E – 194 dated 15.10.2006.

Yours faithfully,

JOINT SECRETARY

Memo No. 10/2 (43)/Relief

Drafted in favour of information and

1) The S.D.O.
2) The B.D.O.
3) The Chairman

for District Magistrate,
2. G.O. for H.B. Grant

Government of West Bengal
Relief Department,
Writers' Buildings, Calcutta.

No. 2591(40)-FR
7M-79/2000

Dated the 2nd October, 2000.

From: Sri S. Halder, w.b.c.s. Deputy Secretary to the
Govt. of West Bengal.

To: 1) The District Magistrate.

2) The Sabhadhipati, Zilla Parishad.

3) Commissioner, Calcutta Municipal Corp. 5, S. N. Banerjee Road, Calcutta-700 013.

4) Commissioner, Division.

Sub: Simplified procedure for House Building Grant to indigent families affected by natural calamities and accidental fire.

Ref: This Department Order No. 163(32) FR dt. 16.01.1991 and No. 50459(19) FR/8P-2/84 dt. 29.12.86.

Sir,

I am directed to state that it has been brought to the notice of the State Govt. that the present procedure for sanction of House Building Grant is time consuming. Now, therefore, I am directed by the order of the Governor to say that the Governor has, after careful consideration, been pleased to direct the following simplified procedure for sanction of House Building Grant to indigent family affected by Natural Calamity will come into force with immediate effect, in modification of the procedure prescribed in G.O. No. 163(32) FR dt. 16.01.1991 and No. 50459(19) FR/8P-2/84 dt. 29.12.86.

A. Procedure for Rural Area.

On receipt of information regarding damage of residential Houses due to natural calamity from any village, a joint inspecting team constituted of a representative of the Gram Panchayat concerned, a representative of the Panchayat Samity concerned and a representative of the B.D.O. concerned will cause an enquiry. The inspection report in the simplified form annexed herewith to be submitted to the Panchayat Samity and Gram Panchayat concerned. The said list will be displayed forthwith publicly in both Panchayat Samity and Gram Panchayat concerned for three days so as to allow members of public to inspect and raise objection if they so desire. After taking such objection (if any) into account, the list will be approved by the B.D.O. with the concurrence of the Sabhadhipati of the Panchayat Samity and thereafter, House Building Grant recommended should be sanctioned by the Block Development Officer. Services of the Block Relief Officer may be utilised appropriately by the Block Development Officer. Every attempt shall be made to complete finalisation of priority list within 15 days. The District Magistrate shall sub-allot fund for House Building Grant to the affected Block on receipt of allotment of fund from the Relief Department and in proportion to number of eligible cases in each Block.

Complaints regarding inclusion/exclusion of priority list should be enquired into seperately by the Panchayat Samity concerned and a decision to be taken appropriately. The Zilla Parishad shall have an
overall monitoring role and shall ensure speedy finalisation of priority list and settlement of dispute.

B. Procedure for Municipal Area.

On receipt of information regarding damage of residential houses due to natural calamity from any Municipality, an enquiry should be caused through field verification by joint inspecting team constituted of a representative of the Municipality and a representative of the Sub-Divisional Officer. The priority list as recommended by them will be submitted to the S.D.O. who will keep the list displayed for 3 days in the S.D.O.'s Office and the Municipal Office to enable members of the public to inspect the list and to raise objection of the list if they so desire. The S.D.O. concerned will dispose of such objection, if any, after due enquiry and sanction the House Building Grant recommended. The District Magistrate will sub-allot the fund to the S.D.O. for this purpose.


The existing procedure laid down in G.O. No. 40621-FR dt. 20.10.86 will remain in vogue.

2. The Block Development Officer or the Sub-Divisional Officer as the case may be will furnish Utilisation Certificate countersigned by the District Magistrate concerned to the Relief Deptt. in respect of the Rural and Urban areas of the districts and the Commissioners of the Calcutta Municipal Corp. will furnish Utilisation Certificate to the Relief Deptt. in respect of Calcutta Municipal Corp. area within 3 months from the date of disbursement.

3. Instructions contained in paras 14 to 19 of the Deptt. G.O. No. 89 (18) FR dt. 15.01.85 on procedure for disbursement of House Building Grant to indigent persons affected by natural calamity should be followed.

This has the concurrence of Finance Deptt. vide that Deptt. U.O. No. Group-E-170 dt. 02.10.2000.

Yours faithfully,

Sd/-
Deputy Secretary.

Enclosure : A proforma.
Annex – II

Map of Murshidabad and Nadia showing flood affected areas in 2000 vis-à-vis normal river course
Map of North 24-Parganas showing flood affected areas in 2000 vis-à-vis normal river course
Annex III: Teaching Note for “The Deluge 2000”

Issues, which can be brought out from this case study, are suggested:

1. A comprehensive Disaster Management plan should be prepared with special emphasis on the following issues:-
   a. Assessment of vulnerability of the population and the properties/infrastructures as well as analysis of the risk are the most crucial factors which need special care to reduce the losses both in long term and short term perspectives;
   b. Mitigation activities both structural as well as non-structural, need to be taken to face this kind of disaster;
   c. There should be a Standard Operating Procedure (SOP) along with checklist for each stage of a disaster (Pre-Disaster, During Disaster & Post Disaster periods) to be followed by the stakeholders involved in Disaster Management;
   d. Establishment of strong and effective system for dissemination of warning is essential. Such a system can be developed through Radio, T.V, Newspaper and other electronic communication systems e.g wireless, cell phones, telephones etc and also by deployment of messengers.
   e. Control Rooms should be established at every tier starting from Gram Sansad, G.P & upward, immediately after receipt of warning and these should be functional round the clock;

2. Methods should be explored how community could be most fruitfully made aware, motivated and mobilised to face this kind of disaster. Selected youths from NGOs, CBOs, PRI bodies etc may be trained to create awareness amongst the community to avert loss and damages due to any disaster and for rendering effective service to the victims of disaster.

3. Actions and co-ordinations including networking amongst various government and non-government organisations are required during the disasters to manage it most effectively;

4. Measures should be taken how to control the Law & Order at the time of such a massive disaster;

5. Damage and impact assessment of the disaster must be done promptly to ensure entire spectrum of relief measures;

6. Documentation of a Disaster Event or Incident in details will provide information to the officials afterwards to combat such situations more effectively in future.

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