

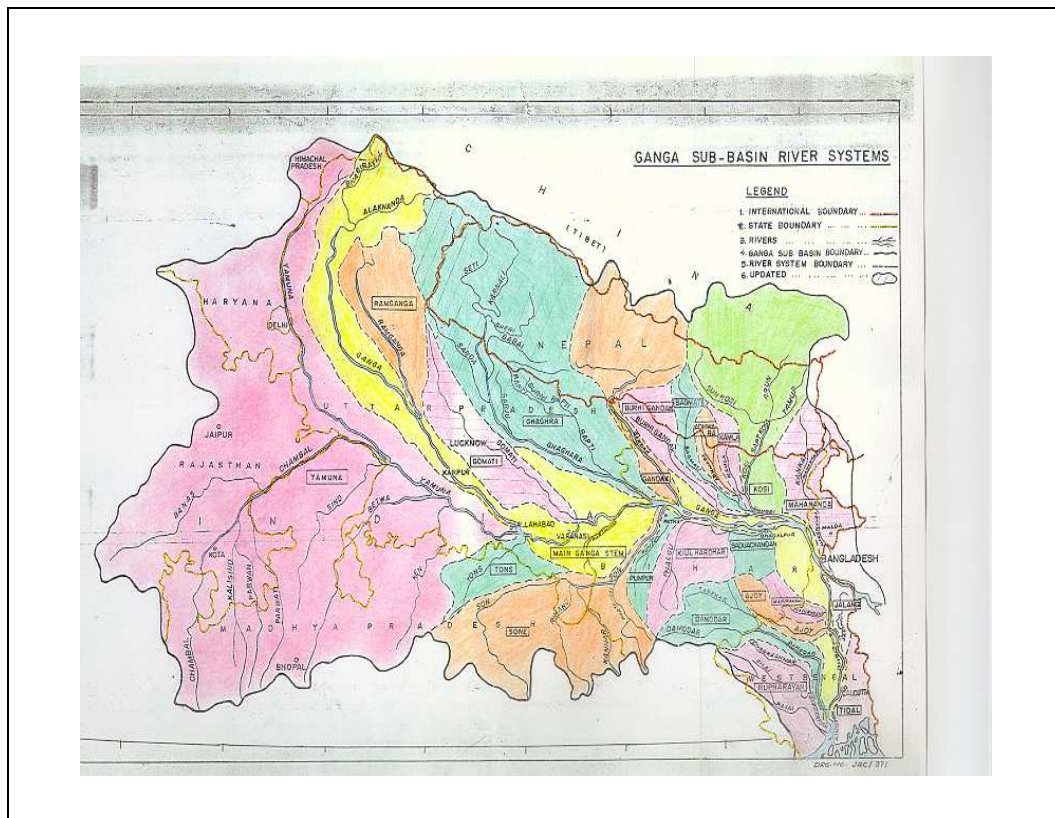


सत्यमेव जयते

**GOVERNMENT OF INDIA
MINISTRY OF WATER RESOURCES
GANGA FLOOD CONTROL COMMISSION**

ANNUAL REPORT

2006-2007



**PATNA
OCTOBER 2007**

CONTENTS

Ch.No.	TITLE	PAGE NO.
	From Chairman's Desk	
	Highlights of the year 2006-07	
1.	Introduction	1
2.	Comprehensive Plans for Flood Management	13
3.	Assessment of Adequacy of Waterways Under Road and Rail Bridges	15
4.	Centrally Sponsored and Central Sector Schemes	16
5.	Monitoring and Performance Evaluation of Important Flood Management Schemes	29
6.	Appraisal of Flood Management Schemes	31
7.	International Cooperation	35
8.	Promotion of use of Hindi	37
9.	Participation in Trainings, Workshops and Seminars	40
10.	Representation of Ganga Flood Control Commission in Various Committees	41

FROM CHAIRMAN'S DESK

GFCC was created in 1972 as the secretariat, executive and functional wing of Ganga Flood Control Board (GFCCB) headed by the Union Minister of Water Resources and having representation at Chief Minister level from all Ganga Basin States and Ministers of associated union ministries. Since its inception, GFCC has played a vital role in helping the states to manage the floods in the Ganga Basin. As a part of process, it has prepared Comprehensive Plans for all the main river systems of Ganga Basin and sent to the State Govt. for taking needful action on the suggestions made in these Comprehensive Plans. On evaluation of the results of the various developmental works taken up by the Ganga Basin states and looking to the changed scenario on the ground, the Comprehensive Plans prepared by GFCC are regularly in the process of updating. So far 21 out of the 23 Comprehensive Plans originally prepared have been updated and sent to various State Govts. for taking follow up action in the matter. In addition to these, GFCC has examined a number of schemes submitted by various State Govts. and cleared them for implementation by various States. GCC also assists states for getting central funds for schemes wherever eligible.

GFCC is represented in various technical committees appointed by State Govts. and the Union Govt. and has played a vital role in decision making process of the committees. As Chairman of the Gandak High Level Committee and Kosi High Level Committee, GFCC has recommended every year, the flood protection works for implementation by the Govts of U.P and Bihar. The implementation of recommendations has successfully helped in maintaining the flood protection embankments satisfactorily thereby protecting large areas behind them.

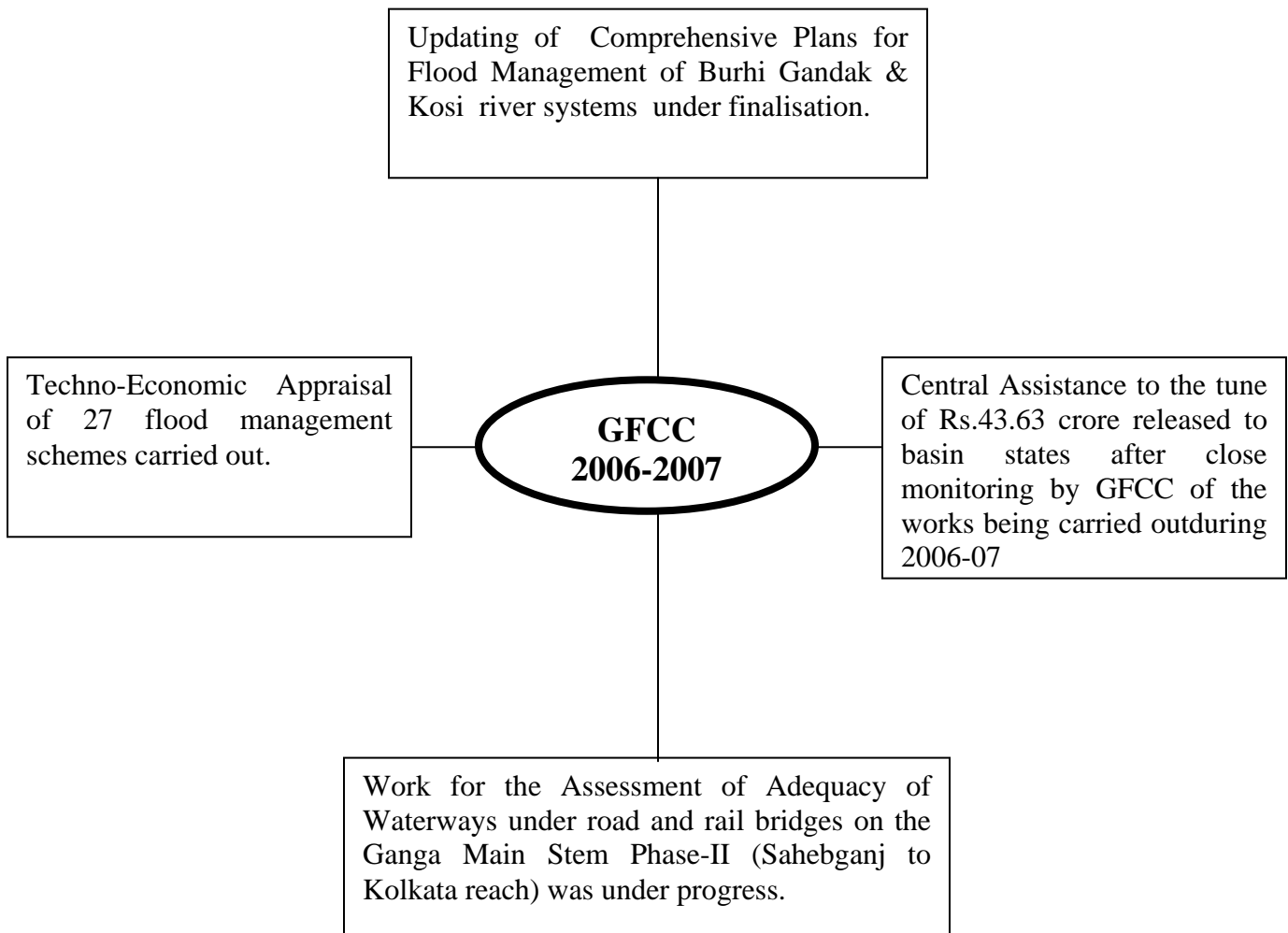
GFCC have also played an important role in tackling international issues with the Govt. of Nepal in the matter relating to flood management by providing technical support to the MoWR, MEA etc. and through membership of various bilateral committees.

GFCC has carried out its assigned function in an efficient and effective manner during the year 2006-07 which has been brought out in this report.

I am sure that this report will give a comprehensive overview of the role of GFCC and its contribution in the field of Flood Management and other associated works in Ganga Basin.

(A.K.Bajaj)
Chairman, GFCC

HIGHLIGHTS 2006-2007



CHAPTER-I

INTRODUCTION

1.1 Ganga River

The river Ganga, known as Bhagirathi upto Devaprayag, rises in Gangotri glacier in Uttarkashi district (Uttarakhand) at an elevation of 7016 m. After flowing nearly 250 km through hilly terrain, it enters the plains at Rishikesh. From Haridwar, which is 30 km below Rishikesh, the river flows in the fertile plains of Uttarakhand and Uttar Pradesh. It receives the river Ramganga from the left before Allahabad and the Yamuna from right at Allahabad. The river flows further 145 km to Varanasi and in this reach it receives the river Tons from the right.

The Ganga enters Bihar in the middle region at a distance of 155 km from Varanasi. In this region, it receives on the north, many of its important tributaries like the Ghaghra at Chapra, the Gandak near Patna, the Burhi Gandak opposite Munger, and the Kosi at Kursela. From the south, the Ganga is joined by Karamnasa near Chausa at Uttar Pradesh – Bihar border, the Sone near Koelwar, the Punpun East of Patna, the Kiul-Harohar near Munger, the Chandan Badua near Bhagalpur and the Gomani near Farakka.

The river Ganga swings around the Rajmahal hill range opposite Maniharighat (south of Katihar) and starts flowing almost to south. The delta of the Ganga starts from Farakka in West Bengal. The river divides into two arms, about 40 km below Farakka. The left arm called Padma flows eastward into Bangladesh and the right arm called the Bhagirathi continues to flow southwards in West Bengal. The Padma is further joined by Brahmaputra and then Meghna in Bangladesh.

The Bhagirathi which flows into West Bengal divides the Murshidabad district into two parts and then forms the eastern boundary of Burdwan district. In this reach, it is joined by the river Ajoy. The Bhagirathi receives Jalangi just above Nabadwip town and from here it is known as Hooghly.

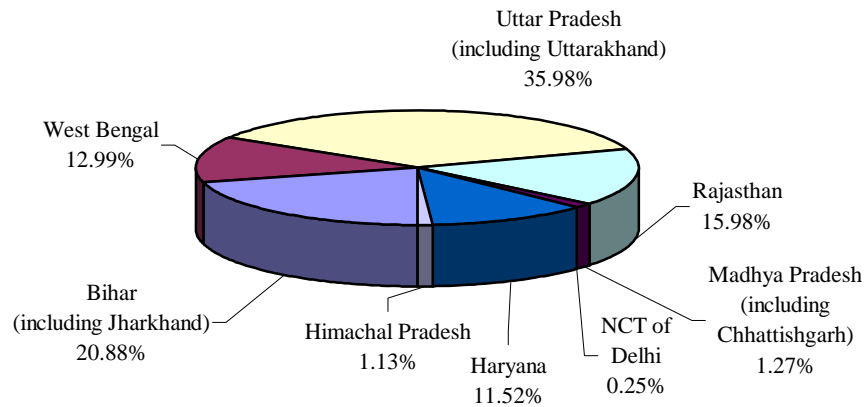
The total length of Ganga from its source to outfall into the sea along Bhagirathi and Hooghly is 2525 km, of which 1450 km lies in Uttarakhand & Uttar Pradesh, 110 km along Uttar Pradesh - Bihar border, 445 km in Bihar & Jharkhand and 520 km in West Bengal.

The river drains a catchment area of 8,61,400 square kilometre (in India) which is nearly 26% of the geographical area of the country, spread over the 11 states of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Himachal Pradesh, Haryana, Delhi, Rajasthan, Madhya Pradesh and Chhattisgarh. The Ganga basin has been divided into 23 river systems of which the main Ganga stem is one of the river systems. A total area of 20.40 million hectares (about 50% of total flood prone area in the country) is prone to floods in these states and recurring floods every year cause huge loss to life and property.

The statewise details of flood prone area are given below:

S.No.	State	Flood Prone area in Mha
1.	Bihar (including Jharkhand)	4.26
2.	West Bengal	2.65
3.	Uttar Pradesh (including Uttarakhand)	7.34
4.	Rajasthan	3.26
5.	Madhya Pradesh (including Chhattisgarh)	0.26
6.	Delhi (NCT)	0.05
7.	Haryana	2.35
8.	Himachal Pradesh	0.23
	Total	20.40

**Pie Diagram Showing % age wise
FLOOD PRONE AREA OF GANGA BASIN STATES
(TOTAL = 20.40 Mha)**



1.2 Ganga Flood Control Board

In order to effectively tackle the critical and chronic flood problems in the areas of the Ganga basin, it was considered necessary to prepare an integrated plan to manage and minimise the problems of flood, erosion and drainage and ensure its implementation in a comprehensive and coordinated manner. To achieve this objective, Ganga Flood Control Board (GFCB) was set up by the Govt. of India vide resolution no.FC-47(2)/72 dated 18.4.1972, for carrying out the following functions:-

- To lay down the broad policies and decide priorities in the implementation of various schemes.
- To issue necessary directions to Ganga Flood Control Commission in respect of formulation of a comprehensive plan of flood control in the Ganga Basin and approval of the schemes so formulated.

1.3 Composition of Ganga Flood Control Board

The revised composition of Ganga Flood Control Board as notified by the Ministry of Water Resources vide resolution no.22/3/99-ER/2586 dated 28.06.2001 is given below:

1.	Union Minister of Water Resources	Chairman
2.	Union Minister of State for Water Resources	Member (Chairman in absence of Union Minister of WR)
3.	Union Minister of Finance or his representative	Member
4.	Union Minister of Railways or his representative	Member
5.	Union Minister of Surface Transport or his representative	Member
6.	Union Minister of Agriculture or his representative	Member
7.	Chief Minister of Bihar or his representative	Member
8.	Chief Minister of West Bengal or his representative	Member
9.	Chief Minister of Uttar Pradesh or his representative	Member
10.	Chief Minister of Haryana or his representative	Member
11.	Chief Minister of Rajasthan or his representative	Member
12.	Chief Minister of Madhya Pradesh or his representative	Member
13.	Chief Minister of Himachal Pradesh or his representative	Member

14.	Chief Minister of Jharkhand or his representative	Member
15.	Chief Minister of Uttarakhand or his representative	Member
16.	Chief Minister of Chhattisgarh or his representative	Member
17.	Member, Planning Commission	Member
18.	Chief Minister, NCT of Delhi or his representative	Member
19.	Chairman, Ganga Flood Control Commission	Member-Secretary

So far 14 meetings of the Ganga Flood Control Board have been held. The 14th meeting of GFCB was held in June, 2000 at New Delhi.

1.4 Evolution Of Ganga Flood Control Commission

The Ganga Flood Control Commission (GFCC), a subordinate office of the Ministry of Water Resources with its headquarters at Patna was created in the year 1972 to deal with floods and its management in the Ganga Basin states vide Government of India Resolution No.FC 47(3)/72 of 18.4.72. It was set up as the Secretariat and the Executive Wing of the Ganga Flood Control Board.

The composition of GFCC is given below:

1.	Chairman, GFCC	Chairman
	Full Time Members	
2.	Member (Planning), GFCC	Member
3.	Member (Co-ordination), GFCC	Member
	Part Time Members of the Commission	
4.	Chief Engineer, Incharge of Flood Control, Water Resources Department, Government of Bihar.	Member
5.	Chief Engineer, Incharge of Flood Control, Water Resources department, Government of Jharkhand.	Member
6.	Chief Engineer, Incharge of Flood Control, Irrigation Department, Government of Uttar Pradesh.	Member
7.	Chief Engineer, Incharge of Flood Control, Irrigation Department, Government of Uttarakhand	Member
8.	Chief Engineer, Incharge of Flood Control, Irrigation and Waterways Department, Government of West Bengal.	Member
9.	Engineer-in-Chief, Water Resources Department, Government of Madhya Pradesh.	Member
10.	Engineer-in-Chief, Water Resources Department, Government of Chhattisgarh.	Member
11.	Member (River Management), Central Water Commission, Government India, New Delhi.	Member

- | | | |
|-----|--|--------|
| 12. | Director, Central Water and Power Research Station, Government of India, Pune. | Member |
| 13. | Chief Engineer (Lower Ganga Basin), Central Water Commission, Government of India, Patna | Member |
| 14. | Chief Engineer (Planning), Roads Wing, Ministry of Surface Transport, Government of India. | Member |
| 15. | Director (Civil Engineering Wing), Railway Board, Government of India. | Member |

Permanent Invitees of the Commission

- i) Chief Engineer, Incharge of Flood Control, Government of Haryana.
- ii) Chief Engineer, Incharge of Flood Control, Government of Himachal Pradesh.
- iii) Chief Engineer, Incharge of Flood Control, Government of Rajasthan.
- iv) Chief Engineer, Incharge of Flood Control, Govt. of NCT of Delhi.
- v) Director (B&S) R.D.S.O., Ministry of Railways, Lucknow.

1.5 Functions of GFCC

The functions of GFCC as originally envisaged are as under:

- (a) Preparation of a comprehensive plan for flood control in Ganga Basin.
- (b) To chalk out a phased and coordinated programme of implementation of the works included in the basinwise plans by the states concerned.
- (c) Ensure proper standards of works and their regular maintenance.

Presently the broad functions of GFCC are as under:

- To prepare a Comprehensive plan of flood management in the Ganga sub-basin. The field investigation and collection of data for the purpose are carried out by the State Governments as directed by the Ganga Flood Control Board.
- To draw out a phased and co-ordinated programme of implementation of works included in the basinwise plans.
- To advise the states concerned to follow guidelines in respect of quality control, material specifications and maintenance in order to ensure the implementation of works and the maintenance thereof to proper standards.
- To prepare the annual programme of works and recommend allocation of funds, wherever required for consideration of the Board.

- To make an assessment of the existing ventways under the road and rail bridges and to determine additional waterways to be provided for reducing the drainage congestion to reasonable limits.
- To monitor the execution of the important flood control schemes particularly those receiving Central Assistance or being executed under the Central Sector.
- To examine all major and medium flood control, drainage, anti waterlogging and anti-erosion schemes of Ganga sub-basin states except for schemes of the States of Haryana, Uttar Pradesh and Delhi on the river Yamuna in the reach Tajewala to Okhla Barrage.
- Documentation and dissemination of findings emerging out of special studies or investigations conducted in participation with scientific organisations for appropriate use by basin states.
- To evaluate the performance of major flood control measures executed by the States including all the Inter-State Flood Control Schemes.
- To participate in various National and International Committees set up by the Govt. of India and Ganga basin States pertaining to the subject of flood management.

GFCC apart from being engaged in the preparation and periodic updation of Comprehensive Master Plans for flood management in the Ganga Basin is also the agency for techno-economic appraisal of flood management schemes in the Ganga Basin. It has also been given the task of coordinating several activities concerning flood management with Nepal.

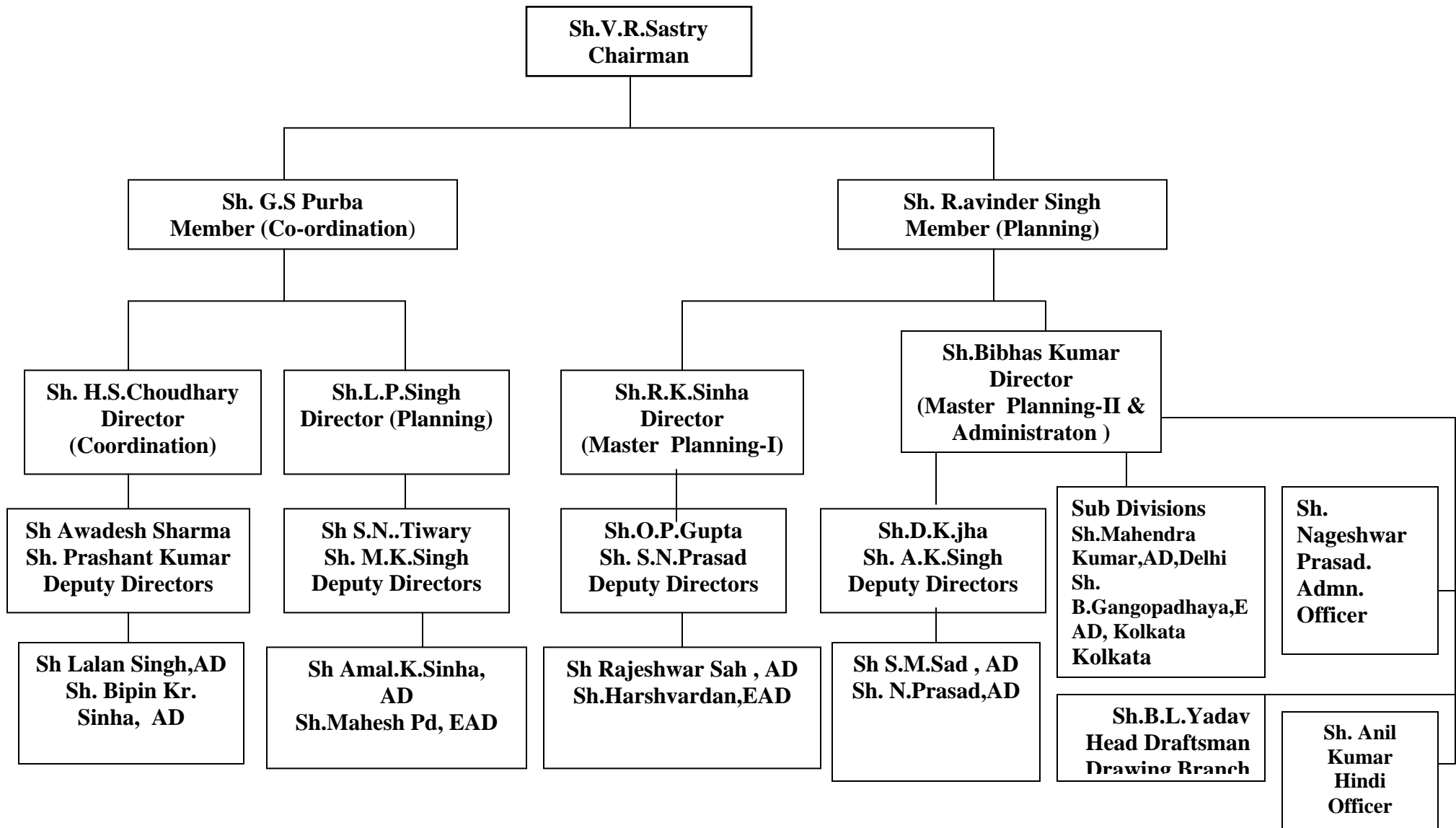
A total of 37 meetings of GFCC have been held up to 31.3.2007. The 37th meeting of GFCC was held in September, 2006 at Jamshedpur (Jharkhand). In the meetings, various issues pertaining to Ganga Basin such as progress made in implementation of recommendations of Rashtriya Barh Ayog, preparation of flood plain zoning/flood risk maps, implementation of sub-basin wise comprehensive plans, Monitoring and evaluation of flood management schemes, use of remote sensing techniques/satellite imageries for delineation of flood plain area, assessing requirement of Model Studies to be carried out before formulation and execution of flood management schemes, preparation of annual catalogue of flood management schemes etc., have been discussed and decisions taken thereon for follow up action by various Ganga Basin States / Central organisations concerned.

1.6 Organisational Set Up of GFCC

GFCC is headed by a Chairman, an officer of the rank of Additional Secretary to the Government of India and is assisted by two full time Members, four Directors and the supporting staff. An organization chart showing the structure of GFCC as on 31.3.2007 is shown on the next page.

GANGA FLOOD CONTROL COMMISSION

ORGANISATION CHART (AS ON 31.3.2007)



1.7 Staff Strength in GFCC

The staff strength of GFCC as on 31.3.2007 is 84 against the sanctioned strength of 101. The details of the posts sanctioned and filled up are given below:

S.No.	GROUP	SANCTIONED	TOTAL FILLED	SC	ST	OBC	PERSONS WITH DISABILITIES
1	A	23	23	-	-	-	-
2	B(Gaz.)	13	7	01	-	-	-
3	B(Non-Gaz.)	02	02	-	01	-	-
4	C	47	37	07	-	-	-
5	D	16	15	05	01	01	2*
Total		101	84	13	02	01	2

* Two disabled Ex-Servicemen

In addition, 19 workcharged staff comprising 3 Drivers, 4 Work Assistants and 12 Khalasis are also in position for carrying out field related activities of GFCC.

All the Group 'A' posts and the posts in the grade of Extra Assistant Director in Group 'B' are included in Central Water Engineering Service Group A & B respectively.

The incumbency list of Gazetted officers during the period 1.4.2006 to 31.3.2007 is given below:

(i)	Chairman	
1.	Shri V.R.Sastry	Full Year
(ii)	Members	
1.	Shri G.S. Purba	Full Year
2.	Shri Ravinder Singh	Full Year
(iii)	Directors	
1.	Shri Bibhas Kumar	Full year
2.	Shri R.K.Sinha	Full year
3.	Shri H.S. Choudhary	From 04.07.2006 onwards
4.	Shri L. P. Singh	Full year
(iv)	Deputy Directors	
1.	Shri Awadhesh Sharma	Full year
2.	Shri R.K. Kanodia	Up to 26.04.2006
3.	Shri Prashant Kumar	Full year
4.	Shri S.N. Tiwary	Full year
5.	Shri Sachidanand Prasad	Full year
6.	Shri O.P.Gupta	Full year

7.	Shri D.K. Jha	Full year
8	Shri Arun Kumar Singh	Full year
9.	Shri Mukesh Kumar Singh	From 26.04.06 onwards
(v)	Assistant Directors	
1.	Shri S.M. Shad	Full year
2.	Shri Lalan Singh	Full year
3.	Shri Nageshwar Prasad	Full year
4.	Shri S.N. Singh	Full year
5.	Shri Rajeshwar Sah	Full year
6.	Shri Amal Kumar Sinha	Full year
7.	Shri Bipin Kumar Sinha	Full year
8.	Shri Mahendra Kumar	Full year
(vi)	Extra Assistant Directors	
1.	Shri Anil Kumar Singh	Up to 28.03.07
2.	Shri A.K. Sinha	Up to 28.03.07
3.	Shri Harshvardhan	Full year
4.	Shri B. Gangopadhyay	Full year
5.	Shri Mahesh Prasad	From 29.12.06 onwards
(vii)	Assistant Director (Gr.II) (Hindi)	
1.	Shri Anil Kumar	Full year
(viii)	Head Draftsman	
1.	Shri B.L. Yadav	Full year
(ix)	Administrative Officer	
1.	Shri B.K. Srivastava	Up to 12.05.06
2.	Shri Nageshwar Prasad	Holding additional charge w.e.f 13.05.06 onwards.
(x)	Private Secretary	
1.	Shri S.N. Lal	Full year
2.	Shri Awinash Kumar	Full year

1.8 Vigilance And Disciplinary Cases

No vigilance or disciplinary case concerning any officer and other staff was pending in this Commission during the year 2006-2007 .

1.9 Redressal Of Staff Grievances

The status of redressal of grievances is as follows:

- Number pending as on 1.4.2007 Nil
- Number received during 2006-2007 Nil

1.10 Parliament Questions And VIP References

1.10.1 Material for reply to 59 nos. parliament questions was prepared during 2006-07 and sent to Ministry of Water Resources.

1.10.2 Material for replies to VIP references numbering 40 was prepared and sent to MOWR during 2006-07.

1.11 Implementation of RTI ACT, 2005

In Ganga Flood Control Commission RTI Act, 2005 has been implemented. The Commission has compiled and published manuals under clause 4(1)(b) of the ACT and displayed on the Website <http://gfcc.bih.nic.in>. The manuals provide all relevant information as required under the Act.

The Ganga Flood Control Commission has also designated One Appellate Authority, One Public Information Officer and 5(five) Assistant Public Information Officer to look into the requests made by the applicants and supply of information to the requestors within stipulated time as provided in the Act. The names of the officers as on 31.03.2007 are as follows.

- | | | | |
|-----|--------------------------------------|---|--|
| (1) | Shri Ravinder Singh, Member (P) | - | Appellate Authority |
| (2) | Shri Bibhas Kumar, Director (MP-II)- | | Central Public Information Officer |
| (3) | Shri S.N.Singh, Asstt.Director | - | Asstt. Public Information Officer
From MP-II Directorate. |

- (4) Shri Harshvardhan, EAD - Asstt. Public Information Officer
From MP-I, Directorate.
- (5) Shri Amal Kr.Sinha, Asstt.Director - - do – From Planning Directorate
- (6) Shri A.K.Singh, EAD - - do – From Coordination Dte.
(Relieved on transfer to CWC on
28.03.07 (A.N))
- (7) Shri Nageshwar Prasad, Asstt.Director- Asstt.Public Information Officer
From Administration Wing

During the year 2006-07 seven requests have been received in this office through MOWR which were promptly replied direct to the applicant.

1.12 Financial Aspect

An expenditure of Rs. 246.44 lakhs was incurred by GFCC during the year 2006-2007 . A statement showing sub-headwise final estimate and actual expenditure during 2006-2007 is given below:

(Amount in Rs. lakhs)

Sl.No.	Head of account	Final Estimate 2006-2007	Actual Expenditure 2006-2007
1	Salary + Medical	192.40	190.19
2	Over time allowance	0.10	0.10
3	Travel Expenses (Domestic)	15.00	14.90
4	Office Expenses	8.50	8.46
5	Minor Works	22.00	20.58
6	Machinery & Equipment	13.00	11.96
7	Travel Expenses (Foreign)	2.00	0.25
	TOTAL	253.00	246.44

CHAPTER-II

COMPREHENSIVE PLANS FOR FLOOD MANAGEMENT

2.1 Preparation of Comprehensive Plan for Flood Management

In the Ganga Basin area, covering eleven states, floods in some part or the other are an annual feature. On account of the inadequacy of the protection works carried out so far, large scale damage due to floods often occurs. It was therefore felt necessary to prepare an integrated plan to tackle the floods, erosion and drainage problems in the basin and implement it in a coordinated manner. It was with this in view that GFCC was set up to prepare Comprehensive Plans for flood management in the entire Ganga Basin. GFCC divided the basin into 23 river systems and comprehensive plans for flood management of all these river systems have been completed between 1975 and 1990. Details are as under :

<u>River System</u>	<u>Year</u>	<u>River System</u>	<u>Year</u>
1. Gomati	1975	13. Damodar	1987
2. Adhwara	1975	14. Kiul-Harohar	1987
3. Ghaghra	1976	15. Yamuna	1987
4. Mahananda	1977	16. Tons	1988
5. Kamla-Balan	1978	17. Ram Ganga	1988
6. Punpun	1986	18. Badua-Chandan	1988
7. Ajoy	1986	19. Rupnarayan-Haldi- Rasulpur	1988
8. Bagmati	1986	20. Jalangi	1989
9. Gandak	1986	21. Sone	1989
10. Burhi Gandak	1986	22. Tidal river system	1990
11. Kosi	1986	23. Main Ganga Stem	1990
12. Mayurakshi	1987		

These comprehensive plans were then circulated to the State Governments concerned for preparing specific schemes for implementation in order of priority.

2.2 Updating Of Comprehensive Plans For Flood Management

Due to rapid changes in the behaviour of the rivers in the Ganga basin and for other reasons, it was considered necessary to update the Comprehensive Plans for flood management of all the river systems. This work was started in 1986 and till 2007, GFCC has updated comprehensive plans for twenty two river systems as under of which four have been updated a second time :

<u>River system</u>	<u>Year</u>	<u>River System</u>	<u>Year</u>
1. Gomati	1986, 1996	11. Mayurakshi	1999
2. Ghaghra	1987, 2002	12. Ramganga	1999
3. Mahananda	1987, 1992	13. Jalangi	1999
4. Adhwara	1988	14. Tons	2000
5. Kamla Balan	1990 2005	15. Ajoy	2002
6. Bagmati	1991	16. Yamuna	2002
7. Burhi Gandak	1992	17. Rupnarayan-Haldi - Rasulpur	2003
8. Kiul Harohar	1993	18. Tidal river system	2003
9. Damodar	1996	19. Badua Chandan	2003
10. Punpun	1997	20. Main Ganga Stem	2004
		21. Sone	2004
		22. Gandak	2004

These updated comprehensive plans were also circulated to the State Governments concerned for further follow-up action.

During the year 2006-07, the updating of Comprehensive plans of the Kosi and Burhi Gandak (2nd updating) river systems remained under finalisation .

2.3 Monitoring of Floods and Preparation of Flood Reports

2006-07

The flood situation in the year 2006 in Ganga Basin States was monitored and 19 weekly reports were sent to the Ministry . Annual Flood Report for the year 2006 is under finalisation and is likely to be issued shortly.

CHAPTER-III

ASSESSMENT OF ADEQUACY OF WATERWAYS UNDER ROAD AND RAIL BRIDGES

3.1 One of the various functions of GFCC i.e. preparation of reports on adequacy of waterways under the Road & Rail Bridges is an important function. GFCC has often been called upon to examine the adequacy or otherwise of the waterways under existing rail and road bridges by the Ministry of Railways and also by the Ministry of Surface Transport. This exercise is aimed at determining additional waterways required for reducing drainage congestion to a reasonable limit. This activity commenced during the later half of the eighties. The years of completion of this work for various river systems are as under:

(1)	Punpun	1986
(2)	Ajoy	1987
(3)	Burhi Gandak	1987
(4)	Mayurakshi	1988
(5)	Bagmati	1988
(6)	Mahananda	1989
(7)	Damodar	1990
(8)	Yamuna	1990
(9)	Gomati	1991
(10)	Gandak	1991
(11)	Jalangi	1991
(12)	Ghaghra	1992
(13)	Ramganga	1992
(14)	Rupnarayan-Haldi-Rasulpur	1993
(15)	Tons	1994
(16)	Kamla-Balan	1994
(17)	Kiul-Harohar	1996
(18)	Adhwara Group	1996
(19)	Badua-Chandan	1997
(20)	Sone	1999
(21)	Kosi	2002
(22)	Damdodar (updating)	2003
(23)	Main Ganga stem (Buxer to Sahebganj Phase-I)	2005

These reports have been circulated to the Ganga Basin states and departments of Central and State Governments concerned for follow up action.

During 2006-07 the survey work of adequacy of waterways under road and rail bridges on Ganga Main Stem (Buxer to Kanpur) was carried out. The report for Ganga Main Stem phase –II for the Sahebganj to Kolkata reach was under preparation.

CHAPTER-IV

CENTRALLY SPONSORED AND CENTRAL SECTOR SCHEMES

The Government of India has been providing financial assistance to the states under various centrally sponsored and central sector schemes. These schemes pertaining to flood protection works in Ganga basin are being coordinated and monitored by GFCC. The details of various schemes are given below:

4.1 Critical Anti-Erosion Schemes

The Ministry of Water Resources (MOWR), Government of India in January, 2003 constituted a Committee headed by Chairman, GFCC for assessment of the gravity of the problem caused by river erosion and overtopping/breaching of existing embankments in the Ganga basin in consultation with the State Governments. The terms of reference of the Committee were:-

- (a) to review the recommendations of Keskar Committee set up by Planning Commission in 1996 on the problem of bank erosion of river Ganga/Padma in West Bengal and also the Ghosh Committee set up by MOWR in August 2000 to study the erosion problem in the critical reaches of Ganga between Buxar and Mokama,
- (b) to identify and recommend the critical anti-erosion schemes in the Ganga basin states for inclusion in the CSS amounting to Rs.133.85 crore as central share for implementation during the remaining Xth plan period of 2004-07 and
- (c) to suggest allocation of central assistance among the states/Farakka Barrage Project Authorities for consideration of the competent authority.

The above committee after detailed examination and site visits submitted its report on 31st July 2003 and the report was accepted by MoWR. Government of India contributes 75% of the cost of implementation of the critical anti erosion schemes under CSS. The remaining 25% is borne by the states. As per the approved scheme, the statewise distribution of central share amounting to Rs. 136.17 crore during the period 2004-07 is given below:

• Jharkhand	Rs. 2.30 crore
• West Bengal	Rs. 51.00 crore
• Bihar	Rs. 40.00 crore
• Uttar Pradesh	Rs. 28.45 crore
• Uttarakhand	Rs. 4.00 crore
• Himachal Pradesh	Rs. 2.32 crore
• Farakka Barrage Project	Rs. 8.10 crore

Again, under the directions of the Prime Minister, a task force was set up by MOWR vide order No. 24/3/2004-ER/2812-48 dated 11 August, 2004 to look into the problem of recurring floods in Assam and neighbouring states as well as Bihar, West Bengal and eastern Uttar Pradesh under the Chairmanship of Chairman, Central Water Commission (CWC) and ex-officio Secretary to Government of India. The Terms of reference of the Task Force were as under:

- i. To examine the causes of the problem of recurring floods and erosion in Assam and other neighbouring states as well as Bihar, West Bengal and Eastern Uttar Pradesh .
- ii. To review the measures undertaken so far to combat floods and erosion.
- iii. To suggest short-term and long term measures for management of floods and erosion control.
- iv. To examine related international dimensions and suggest future course of action.
- v. To suggest institutional arrangements for tackling the problems.
- vi. To suggest sources of funding for the future action plans.
- vii. To examine any other related matter / issue.

The above committee submitted its report on 31st December 2004 . and the report has been accepted by MoWR. In the same way as above, Government of India contributes 75% of the cost of implementation of the critical anti erosion schemes under CSS. The remaining 25% is borne by the states. As per the approved revised scheme in June, 2005 and further revised in Nov. 2006 , the statewise distribution of central share amounting to Rs. 195.63 crore and Rs. 251.02 crore during the period 2004-07 is given below:

	<u>Revised in 6/05</u>	<u>Revised in 11/06</u>
• Jharkhand	Rs. 2.30 crore	Rs.4.30 crore
• West Bengal	Rs. 51.00 crore	Rs.51.00 crore
• Bihar	Rs. 51.56 crore	Rs.65.84 crore
• Uttar Pradesh	Rs. 28.45 crore	Rs.32.56 crore
• Uttarakhand	Rs. 4.00 crore	Rs. 4.00 crore
• Himachal Pradesh	Rs. 2.32 crore	Rs. 4.32 crore
• Farakka Barrage Project	Rs. 56 crore	Rs. 89.00 crore

The following table gives the details of the schemes taken up statewide and their progress during the year 2004-05 to 2006-07 :

Sl.No.	Name of State	No. of Schemes taken up for execution	No. of schemes completed up to 2005-06	No. of schemes completed during 2006-07	No. of schemes under progress as on 31.03.07
1.	Bihar	21	8	-	13
2.	Jharkhand	2	-	1	1
3.	West Bengal	10	1	1	8
4.	Uttar Pradesh	10	1	7	2
5.	Uttarakhand	1	-	1	-
6.	Himachal Pradesh	2	1	-	1

Officers of the GFCC monitor these schemes and monitoring reports are sent to Ministry of Water Resources regularly. During the year 2006-07 following centrally sponsored critical anti-erosion schemes were monitored by GFCC officers and monitoring reports were prepared and sent to Ministry of Water Resources:-

S.N.	NAME OF SCHEMES
UTTAR PRADESH (2006-07)	
1.	Project/Estimate for Raising & Strengthening of Bansi-Panghatia Bund in 20.7 km length between km 0.00 to km. 32.90 on R/B of river Rapti in distt. Siddharthnager, Estd. Cost Rs.399.00 lakh
2.	Project/Estimate for Raising and Strengthening of Banaraha Bund, Banaraha Extension Bund, Kudaria-Maniram Bund and Madhopur Bund on left bank of river Rohin in district Gorakhpur, Estd. Cost Rs.308.00 lakh
3.	Project/Estimate for Raising & Strengthening of Bokta Barwar Bund and Nausarh Kalani Bund on right bank of river Rapti in Distt. Gorakhpur. Estd. Cost Rs. 378.390 lakh
4.	Project/Estimate for Flood Protection Works of Hobert Bund from km. 0.00 to km 3.900 on left bank of river Rapti in Distt. Gorakhpur Estd. Cost Rs. 303.00 lakh
BIHAR (2006-07)	
1.	Raising and Strengthening of Burhi Gandak left Embankment from 112 km to 172 km on river Burhi Gandak for critical reaches. Estd. Cost Rs. 540.22 lakh
2.	Raising and Strengthening of right embankment from 20 km to 49 km and 96 km to 162 km on the river Burhi Gandak for critical reaches. Estd. Cost. 477.04 lakh
3.	Anti Erosion Work at Laukaria, Patzirwa on Champaran Embankment on left bank of river Gandak. Estd. Cost. Rs. 439.55 lakh
4.	Raising & Strengthening of Saran Embankment from Km 17 to km 85 on the left bank of river Gandak Estd. Cost. 722 lakh
WEST BENGAL (2006-07)	
1.	Bank protection to the left bank of the river Bhagirathi at village-Maganpara (1000m). Estd. Cost Rs. 74.95 lakh
2.	Protection to the right bank of river Ganga/Padma from downstream of Farakka Barrage upto Jalangi at Paraspur in Block & P.S Jalangi, Distt. Murshidabad (length of protection : 1100m) Estd. Cost 1185.94 lakh
3.	Bank Protection to the right bank of the river Bhagirathi at Kanthalia (Kaharpara) in Block Berhampore (350m) Estd. Cost Rs.39.27 lakh

S.N.	NAME OF SCHEMES
4.	Bank Protection to the left bank of the river Bhagirathi at Meliani Majhyampur in Block Beldanga-1 (700m) Estd. Cost Rs.70.27 lakh
5.	Bank Protection to the left bank of the river Bhagirathi at Banamalipur (1000m) Estd. Cost. Rs.94.39 lakh
6.	Protection work on the right bank of the river Ganga/Padma at Sankopara at Mouza Paranpara (300m) Estd. Cost Rs. 121.17 lakh
7.	Protection of the bank of river Mahananda at Haptiagacha (300m) and Chitalgacha (180m) in P.S Chopra and downstream of Gorahar village (250m), Bariol (300m), Bajitpur (350m), Damdolia (700m), Churaman (600m), Dakshin Birnagar (350m) and Subarnapur (400m) in P.S Itahar and Titya (800m) in P.S Chakulia, Dist.-Uttar Dinajpur (Total length- 4230 m) Estd. Cost Rs.352.41 lakh
8.	Protection work along right bank of river Hooghly at village Khatriyanagar, Mouza Bhabanipur & Sripur (600m). Estd. Cost Rs. 53.94 lakh
9.	Protection to the right bank of river Hooghly from Bhangagara to Kukrahati (in patches 1050m) Estd. Cost Rs. 81.06 lakh
10.	Protection to the right bank of river Rupnarayan at Donipur in between 20 MP to 24 MP (750m). Estd. Cost Rs.84.08 lakh
11.	Protection to the left bank of river Atrai from erosion at mouza Bara Raghunathpur upstream & downstream of Ferryghat (930m) Estd. Cost Rs.94.78 lakh
12.	Protection work on the right bank of the river Bhagirathi at village Alampur, Block-Suti-I (450m) Estd. Cost Rs. 39.74 lakh
13.	Protection to the left bank of the river Bhagirathi at vill-Sridharpur & Trimohani at Mouza-Khadirpur and Sekendra (1000m) Estd. Cost Rs.76.14 lakh
14.	Protection to the right bank of the river Ganga/Padma at Khodabandapur Primary School near Paranpara (330m) Estd. Cost Rs. 137.29 lakh
15.	Protection to the eroded left bank of river Hooghly/Bhagirathi at Char Sarati near Char Sarati High School (400m) Estd. Cost Rs.67.44 lakh
16.	Protection to the bank against erosion at Prachin Mayapur along river Bhagirathi on right bank from 90m to 1300m and from 1340m to 1440m (1310m) Estd. Cost Rs.42.19 lakh
17.	Protection to the eroded left bank of river Bhagirathi at Ghasuridanga from 5.60 km to 7.10 km (1500m) Estd. Cost Rs.128.54 lakh

S.N.	NAME OF SCHEMES
18.	Protection to the left bank of river Bhagirathi at Mouza Dighirpahar & Kassiadanga at village Dighirpahar, Gobindapur, Kalabag and Bhagabanpur (1500m) Estd. Cost Rs. 105.91 lakh
19.	Protection to the bank of river Nagar at Makra (300m), Kumarjol (800m), Chota vitiahar (300m), Jagdishpur (500m), Panchbhaya (300m) and Khari Sariabad (300m) & Gopalpur (500m) in P.S Raiganj and Raghapur (300m) in P.S Karandighi, District Uttar Dinajpur (Total length 3300m) Estd. Cost Rs.255.55 lakh

Based on these reports, the Ministry of Water Resources released a total amount of Rs. 41.13 crore to the State Government during 2006-07 thus making the total releases upto 2006-07 as Rs.142.83 crore. The break up is given below:

(Amount in Rs Crore)

Sl.No.	State	Total Central Share	Amount released in 2004-05	Amount released in 2005-06	Amount released in 2006-07	Total	Remarks
1	2	3	4	5	6	7	8
1.	Bihar	65.84	19.41	22.34	20.60	62.35	Rs. 22.34 crore released in 2005-06 includes adjustment of Rs.2.498 crore unspent balance of central share released in 2002-03 & 2003-04 for spillover works of IXth Plan
2.	Uttar Pradesh	32.56	12.58	10.94	3.47	26.99	
3.	Uttarakhand	4.00	1.00	1.77	1.18	3.95	
4.	West Bengal	51.00	15.00	14.84	11.74	41.58	
5.	Himachal Pradesh	4.32	1.00	1.32	1.34	3.66	
6.	Jharkhand	4.3	-	1.50	2.80	4.30	

4.2 Flood Proofing Programme in North Bihar

In pursuance of the decision taken in the meeting of the committee of Secretaries held on 16-10-90, in the Cabinet Secretariat, Govt. of India, Ministry of Water Resources constituted a Steering Committee on flood proofing programme in North Bihar vide memorandum dt. 28th January, 92 to provide temporary shelter with basic amenities to people in the critically flood prone areas during floods and to relieve drainage congestion.

The Secretary, (WR) and Chairman, GFCC are the Chairperson and Member-Secretary respectively of the Committee.

The composition of the committee is given below:

1.	Secretary, Ministry of Water Resources.	Chairperson
2.	Joint Secretary and Finance Advisor, Water Resources.	Member
3.	Joint Secretary and Mission Director, Rajiv Gandhi National Drinking Water Mission, Ministry of Rural Areas and Employment Department of Rural Development.	Member
4.	Joint Secretary (North), Ministry of External Affairs.	Member
5.	Member (Tech), Ministry of Surface Transport.	Member
6.	Addl. Secretary & Relief Commissioner, Deptt. of Agriculture & Cooperation, Ministry of Agriculture.	Member
7.	Representative from Department of Telecommunication.	Member
8.	Representative from Railway Board.	Member
9.	Representative from Government of Bihar.	Member
10.	Chairman, Ganga Flood Control Commission	Member-Secretary

So far 11 meetings of the committee have been held. The 11th meeting of the steering committee was held in October 2003. Out of 100 schemes approved so far, only 69 schemes have been taken up for implementation by Government of Bihar. Out of 69 schemes taken up for implementation 58 schemes have been completed/declared complete. This programme was started during the 8th five year plan and was carried out up to 2003-04. Government of India provided fund for execution of the scheme except for cost of land and establishment cost involved in a particular scheme.

The execution of the scheme was put on hold in 2004-05 and since then no work has been taken up as per a decision of Ministry of Water Resources. The decision about taking up further work under the programme was to be based on the outcome of the performance evaluation study of the completed schemes in Bihar. The work of preparing a performance evaluation study of completed flood proofing scheme located in North Bihar was awarded to WAPCOS (I) Ltd. and the work on preparation of the report remained under progress during the year under consideration. Under this programme an amount of Rs. 531.84 lakh had been released up to 2003-04 .

4.3 Maintenance of Flood Protection Works on Kosi and Gandak Projects

4.3.1 Protection Works on Kosi

The Kosi High Level Committee (KHLC) was constituted by the then Irrigation Deptt. Government of Bihar in the year 1978 under the Chairmanship of Chairman, GFCC to review/examine the protection works already taken on the river and recommend protection measures to be taken before the next flood season. Since then the committee is inspecting every year the protection works taken up on the river and is making recommendations regarding protection work to be executed on the river before the next flood season. The State Government executes the schemes on the basis of the recommendations of the committee.

The present Composition of the committee is given below:

1.	Chairman GFCC, Patna.	Chairman
2.	Engineer-in-Chief (North) Water Resources Deptt., Government of Bihar.	Member
3.	Director, CWPRS, Pune or his representative.	Member
4.	Member (RM) Central Water Commission, New Delhi or his representative	Member
5.	Chief Engineer Water Resources Deptt., Government of Bihar, Darbhanga.	Member
6.	Chief Engineer (Master Plan) Water Resources Deptt., Government of Bihar.	Member
7.	Chief Engineer (Research) Water Resources Deptt., Government of West Bengal.	Member
8.	Dy. Director General Irrigation Deptt. HMG, Nepal.	Member
9.	Director, Eastern Region Irrigatin Deptt., HMG Nepal, Biratnagar.	Member
10.	Chief Engineer Water Resources Deptt., Government of Bihar, Birpur.	Member-Secretary

Like in previous years, the KHLC inspected the protection works in November 2006 and recommended works to be carried out before the floods of 2007.

The expenditure incurred by Government of Bihar on protection works in Nepal, is reimbursed in full by Government India under a central scheme. The reimbursement is made based on the expenditure statement received from Government of Bihar for the amount involved in protection of river Kosi in Nepal portion.

During the year 2006-07 , an amount of Rs 147.446 lakh was released to the Government of Bihar for works in Nepal portion based on the expenditure statement furnished by Water Resources Department, Govt of Bihar.

4.3.2 Protection Works on Gandak

A similar Gandak High Level Committee (GHLC) was initially constituted by the then Ministry of Irrigation, Govt. of India vide office memorandum no.10/12/80-FC dated 12th November, 1981 to evaluate the performance of flood protection works on the right bank of the river Gandak in the States of Uttar Pradesh and Bihar during 1981 floods, guide and advise construction activities in the two States and to suggest programme of works for the year 81-82. The term of the committee was extended from time to time. Now the Gandak High Level Committee has been renamed as Gandak High Level Standing Committee vide Ministry of Water Resources letter no. 5/15/2002-ER/Ganga /1219-27 dated 21.03.2006.

The terms of reference of the committee are :

- ❖ To review the flood control and anti-erosion works so far executed by the State Governments of U.P and Bihar and evaluate their performance during the floods.
- ❖ To recommend a programme of works which could be executed by the two states in a coordinated manner.
- ❖ To guide the construction activities in the States and advise on the steps to be taken to get over any difficulties that may arise with a view to ensure that all the necessary works are completed by the states latest by June each year.

The Chairman, GFCC is the Chairman of the Committee. The Composition of the Committee is given below:

1.	Chairman GFCC, Patna	Chairman
2.	Engineer-in-Chief Water Resources Deptt., Government of Bihar.	Member
3.	Engineer-in-Chief Irrigation Department, Government of U.P.	Member
4.	A Representative from Central Water and Power Research Station P.O.-Khadakwasla, Pune.	Member
5.	Chief Engineer (Research) Irrigation Research Institute, Government of Bihar, Khagaul.	Member
6.	Director Irrigation Research Institute, Government of U.P.(Roorkee).	Member
7.	Director(Co-ordination) GFCC, Patna.	Member-Secretary

Since its constitution, 39 meetings of the Committee have been held upto 2006-2007 and recommendations were made for protection works to be executed before the next floods. The respective State Govts. executed the works as per recommendations of the Committee.

During the year 2006-07, the meeting/site inspections by the committee were held in the month of November 2006 and recommendation were made for the works to be carried out before the floods of 2007. The expenditure made by Government of U.P. in Nepal portion for maintaining the flood protection works on right bank of river Gandak is reimbursed by Government of India. This reimbursement was started since 1997-98. The protection works in Nepal portion for which Government of India is making reimbursement is a central scheme. During the year 2006-07 an amount of Rs.102.55 lakh was released to Government of U.P. for works in Nepal portion.

4.4 Extension of Embankments on Lalbakeya, Bagmati, Kamla and Khando Rivers

The Ministry of Water Resources is providing funds to the Government of Bihar for construction as well as raising and strengthening of embankments on the rivers Lalbakeya, Bagmati, Kamla and Khando in specific reaches in the Indian portion. The Standing Finance Committee has approved the central scheme "Raising and strengthening of existing embankments on rivers Lalbakeya, Kamla, Bagmati and Khando rivers" during the IXth Five year Plan (1997-2002) at an estimated cost of Rs. 8.68 crore (Rs. 3.59 crore for Lalbakeya and Rs. 5.09 crore for Bagmati) in October, 1999. For X Five Year Plan (2002-2007), administrative approval for the above scheme at an estimated cost Rs. 60 crore was given by Ministry of Water Resources, Government of India which was reduced to Rs. 46.00 crore by Planning Commission due to poor progress of the scheme.

The monitoring of the construction of Embankments in Indian portion is being done by the Ganga Flood Control Commission. The works on the Lalbakeya, Bagmati and Kamla Embankments have been started. The works on embankments along Khando are yet to commence. Scheme on Khando Embankment is yet to be received in GFCC from Government of Bihar.

The details of the schemes taken up on these rivers in Indian portion are given below:

4.4.1 Raising and Strengthening of Embankments on Lalbakeya River

This scheme costing Rs. 3.59 crore consists of following five components:

Amount (in Rs. Lakh)

Sl.No.	Name of the Work Component	Estimated Cost
1.	Construction of left embankment 1.415 km including anti-flood sluices	104.66
2.	Restoration of right embankment (North of Railway line) length 2.765 km. including anti-flood works.	13.87
3.	Strengthening of Bairgania ring bund (north of Railway line) length 6.6 km including re-sectioning of drainage channel, repair/construction of sluice/culvert.	58.52
4.	Strengthening of Doab embankment (South of Railway line) length 0 to 10 km.	78.43
5.	Restoration of right embankment (south of Railway line) length 15.535 km.	103.95
	Total:	359.43

Based on the physical and financial progress achieved, an amount of Rs 330 lakh has been released to the Government of Bihar so far. As per the proposals included in the sanctioned scheme, the work on Lalbakeya Embankment is almost complete except the work of re-sectioning of drainage channel, strengthening of Doab embankment from 0 to 10.00 km and construction of Anti-flood sluices. The work for resectioning of drainage channel is under progress and work on anti-flood sluices is to be started by Govt. of Bihar.

The year-wise details of funds released to Government of Bihar for the Lalbakeya Embankment scheme are given below –

(Amount in Rs. lakh)

Sl. No.	Financial Year	Fund released by Govt. of India
1.	1998-1999	100
2.	1999-2000	80
3.	2000-2001	50
4.	2001-2002	100
5.	2002-2003	Nil
6.	2003-2004	Nil
7.	2004-2005	Nil
8.	2005-2006	Nil
	Total	330

4.4.2 Raising and Strengthening of embankments on Bagmati River

During 2006-07 following two schemes were submitted which were cleared by GFCC:

S.No	Name of Scheme	Estd. Cost (Rs. In Lakh)
1	Detailed estimate for raising and strengthening of Bagmati right embankment between 0.00 – 9.72 km and left embankment from 0.00 – 17.5 km	995.2
2	Scheme for anti erosion works at u/s of Dheng bridge including filling of 2 nos. of breaches in the left afflux bund and anti-erosion works at vulnerable reaches between 0.00 – 17.50 km of Bagmati left embankment	377.65

The year-wise details of fund release to Government of Bihar for the Bagmati Embankment scheme is given below:

(Amount in Rs. lakh)

Sl. No.	Financial Year	Fund released by Government of India
1	2000-2001	50
2	2001-2002	100
3	2002-2003	150
4.	2003-2004	Nil
5.	2004-2005	Nil
6.	2005-2006	216.66
7.	2006-2007	685.85
	Total	1202.51

4.4.3 Raising and Strengthening of embankments on Kamla River

During 2006-07 the following scheme was cleared by GFCC:

S.No.	Name of Scheme	Estd. Cost (in Rs.Lakh)
1	Raising and strengthening of works in Weaker reaches of left and right embankment of Kamla Balan river before March, 2007.	1300.00

The year-wise details of fund release to Government of Bihar for the Kamla Embankment scheme is given below:

Amount Rs. In Lakh

Sl. No.	Financial Year	Fund released by Government of India
1.	2003-2004	Nil
2.	2004-2005	Nil
3.	2005-2006	1196.00
4.	2006-2007	1147.93
	Total	2343.93

4.5 Central Assistance Released To States

During the year 2006-2007, an amount of Rs. 41.12925 crore was released to the states of Bihar, Uttar Pradesh, Uttarakhand, West Bengal and Himachal Pradesh as central assistance for various centrally sponsored/central sector schemes mentioned earlier. The state wise break up is given below:

Sl.No.	Name of State	Amount of central assistance released in 2006-2007 (in Rs. Crore)
1.	Bihar	20.60
2.	Uttar Pradesh	3.47
3.	Uttarakhand	1.18
4.	West Bengal	11.74
5.	Himachal Pradesh	1.34
6.	Jharkhand	2.80
	TOTAL	41.13

4.6 Common Border Schemes in West Bengal and Assam

For Emergent Flood Protection Works in the Eastern sector on common border rivers with Bangladesh, the Ministry of Water Resources, Government of India constituted a Committee with Member, Ganga Flood Control Commission as Chairman, Director, as Member-Secretary and Chief Engineer of the concerned states of Eastern Region as Members of the Committee vide O.M. No. 4/4/30-92/JRC/ER/505 dated 17.03.1992. Later on, the Committee was abolished as per decision of MoWR vide office order no. 4/4/92-ER/1521 dated 22.10.1993 with a direction that the residual work of this Committee would be looked after by GFCC. Subsequent to the abolition of the above Committee, MoWR issued an instruction that GFCC would scrutinize flood management schemes on the common border rivers with Bangladesh and make recommendations to MoWR for release of funds vide letter No. 4/4/92-ER/1669 dated 10.11.1993.

Government of India is providing Central Loan Assistance for emergent flood protection work in the Eastern sector under grant-80, at interest rate of 13% per annum, returnable within a period of 25 years. An amount of Rs. 472.58 lakh has been released till 31.3.07 to states of West Bengal and Assam under the scheme.

Details of fund released are as under :

Sl.No.	Name of State	(Amount in Rs. lakh)								
		1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-07
1.	West Bengal	NIL	55.00	55.00	9.95	Nil	Nil	Nil	Nil	Nil
2.	Assam	44.25	21.86	47.00	109.00	26.33	Nil	Nil	Nil	104.19
	Total	44.25	76.86	102.00	118.95	26.33	Nil	NIL	Nil	104.19

CHAPTER –V

MONITORING AND PERFORMANCE EVALUATION OF IMPORTANT FLOOD MANAGEMENT SCHEMES

5.1 Monitoring of important flood management schemes

Monitoring the execution of important ongoing flood management schemes and rendering advice to the states for accelerated implementation of the schemes is one of the activities of GFCC. These schemes are funded by the State Government from their own resources. Following schemes were being monitored during the year:

- (a) Ghea-Kunti drainage scheme (West Bengal).
- (b) Tamluk drainage scheme (West Bengal).
- (c) Urgent development of Sunderbans (West Bengal).

During the year 2006-2007, monitoring report of one scheme namely Urgent development works of Sunderbans area has been sent to the offices concerned. The report of Tamluk drainage scheme and Ghea Kunti drainage scheme were not issued due to non receipt of requisite data from Govt. of West Bengal.

Besides above, all schemes receiving Central Assistance under the following centrally sponsored /central sector schemes were closely monitored during the year.

- Maintenance of flood protection works of Kosi and Gandak Projects in Nepal portion.
- Critical Anti erosion works in Ganga Basin States
- Raising, Strengthening and Extension of embankments on Lalbakeya, Bagmati, Kamla and Khando rivers

5.2 Performance Evaluation of Flood Management Schemes

5.2.1 The need for evaluating the performance of major flood management schemes has been stressed time and again in the meetings of both GFCB & GFCC in view of the heavy expenditure incurred in providing protection against floods to specific areas in the basin particularly the inter-state flood management schemes. The states were not keen to take up this assignment and hence Government of India decided to undertake this task through GFCC for important schemes in consultation with the major Ganga Basin states.

5.2.2 Performance evaluation studies of completed Flood Management schemes

Till date, the performance evaluation studies of eight number of completed Flood Management schemes have been got done by GFCC through private Consultants. Out of 8 schemes three each are from Uttar Pradesh and West Bengal and two from the state of Bihar. The details of schemes are as follows:

- (a) Lakhnauti bund scheme (Uttar Pradesh).
- (b) Barhya-Kotha bund (Uttar Pradesh).
- (c) Lucknow Town Protection Scheme (Uttar Pradesh).
- (d) Kamla-Balan embankment scheme (Bihar).
- (e) Mahananda embankment scheme (Bihar).
- (f) Mahananda embankment scheme (West Bengal).
- (g) Dubda basin drainage scheme (West Bengal).
- (h) East Mograhat drainage scheme (West Bengal).

During the year 2006-07, this issue was discussed in the 37th meeting of GFCC held at Jamshedpur (Jharkhand) and the various Ganga basin states were requested to suggest the names of the completed schemes for performance evaluation studies by GFCC. Response from the states is awaited.

CHAPTER-VI

APPRAISAL OF FLOOD MANAGEMENT SCHEMES

6.1 Techno-economic appraisal of flood management schemes received from the Ganga Basin States is a continuing activity of GFCC. Schemes estimated to cost between Rs. 7.5 crore and Rs.15 crore are examined by GFCC for its techno-economic viability and, if found acceptable are cleared by GFCC itself and recommended to Planning Commission for investment clearance. Schemes costing less than Rs. 7.5 crore are cleared at the State level by the State Flood Control Boards. Schemes costing above Rs. 15 crore if found acceptable are recommended to Technical Advisory Committee of the Ministry of Water Resources by GFCC for clearance.

Normally GFCC does not examine schemes costing less than Rs. 7.5 crore, However in special cases such as schemes on emergent Flood Protection works in the Eastern Sector on common border rivers with Bangladesh, Ministry of Water Resources, Government of India issued an instruction that GFCC would scrutinize schemes on the common border rivers with Bangladesh and make recommendations to MOWR for release of funds vide letter No. 4.4.92-ER/1669 dated 10.11.1993. All CSS schemes, irrespective of cost, are however examined from techno-economic angle in GFCC.

6.2 The names of schemes examined during 2006-07 and their status are given below:-

UTTAR PRADESH

S. No.	Name of Scheme	Estimated cost in Rs.lakh	Status
1.	Project Estimate of Flood Protection of Palia-Bheera Railway line on right bank of river Sarda in distt-lakhimpur-Kheri,	2472.00	State Govt. has been asked to revise the scheme.
2.	Project Estimate for construction of Marginal Embankment on Left and Right Banks of river Sarda from Pilibhit border to Mailani Pallia Railway line in district-Lakhimpur	2047.08	Dropped due to non-compliance of GFCC comments for more than one year.
3.	Project Estimate for construction of Marginal Embankment on left and right banks of river Sarda in district-Pillibhit	8409.00	Comments sent to State Govt.

4.	Project Estimate for construction of Marginal Embankment on right bank of river Ghaghra and left bank of river Sarda in district-Lakhimpur Kheri	4652.00	Approved on 20.10.06 by TAC.
5.	Project Estimate for construction of Marginal Embankment from Sardanagar to Aeira bridge on right bank of river Sarda in district-Lakhimpur	1326.00	Dropped from list of schemes pending in GFCC due to non-compliance of GFCC's comments for more than one year
6.	Project Estimate for construction of Marginal Embankment from Aeira Bridge to Chahlarighat along right bank of river Sarda and Ghaghra in district Lakhimpur	3363.52	- do -
7.	Project Estimate for construction of Marginal Embankment along right banks of river Ghaghra and Chauka in upstream of Elgin Bridge in district-Sitapur and Barabanki	1792.33	Comments sent to State Govt.
8.	Project Estimate for new drains between Ghaghra and Gomati rivers in the basins of Ghaghra and Kalyani in district Barabanki	590.94	Examined in GFCC but later on cleared by CWC.
9.	Project Estimate for remodeling of Quila-Mohammadinagar drain in district Lucknow.	3987.00	Comments sent to State Govt.
10.	Project Estimate for anti-Erosion Works on Left Bank of river Ganga from Simli to Balawali in district-Bijnor	1268.12	Comments sent to State Govt.
11.	Project Estimate for construction of Mahadeva-Uska Bund on Right Bank of river Kunra in district-Sidharthnagar	1044.00	Approved on 07.07.06
12.	Project Estimate for Raising & Strengthening of Bansi-Panghatia Bund in 20.70 km. length between km. 0.00 to km. 32.900 on right bank of river Rapti in district Siddarthnagar	399.00	Approved on 25.01.07
13.	Project Estimate for extension of Gomatinagar Protection Bund on left bank of river Gomati in downstream of Northern Railway Bridge no.469	7818.00	Comments sent to State Govt.

MADHYA PRADESH

S. No.	Name of Scheme	Estimated cost in Rs.lakh	Status
1.	Project Estimate for Gwalior Flood Protection Work Phase-III in district Gwalior	2141.00	Comments sent to State Govt.

HIMACHAL PRADESH

S. No.	Name of Scheme	Estimated cost in Rs.crore	Status
1.	Channelisation of Bata river from RD 9000 to 10,230 m in Sirmour district.	267.50	Scheme under execution

WEST BENGAL

Sl.No.	Name of Scheme	Estimated cost (Rs.in lakh)	Status
1.	Raising & Strengthening to the Sunderbans embankment by armouring with brick block pitching at Mouza-Jharkhali-IV facing river Herobhanga (from 48.33 km to 48.98 km) under P.S Basanti in the District of South 24 Parganas.	153.88	GFCC has sent the observations on 3.11.06 to Govt. of West Bengal for compliance. Reply is awaited from the State Govt.
2.	Restoration of damaged Sunderban embankment by raising, strengthening and armouring with 25 cm brick block pitching along left bank of river Mridanagabhanga from 48.32 km to 49.02 km of Mouza-Maheshpur, P.S-Patharprotima, Distt-South 24 Parganas.	169.87	- do -
3.	Restoration of damaged Sunderban embankment by raising, strengthening and armouring with 25 cm thick brick block pitching along R/B of river-Thakuran from 12.20 km to 12.565 km and from 12.634 km to 13.00 km at Mouza-Purba-Sipatinagar, P.S-Patharprotima, Distt-South 24 Parganas.	174.10	- do -

4.	Raising & strengthening of Sunderban embankment by armouring with 32.5 cm thick dry brick pitching along left bank of river-Bidya from 18.20 km to 18.825 km at Mouza-Mathura-Khanda and from 20.50 km to 21.00 km at Mouza-Amlamethi, P.S-Gosaba, Distt-South 24 Parganas.	275.90	-do -
5.	Raising & Strengthening of Sunderban embankment by armouring with dry brick pitching from 28.80 km to 29.50 km at Mouza-7 no. Sonakhali along right bank of river Hogal and the left bank of river Hogal near Basanti Bazar from 0.25 km to 0.75 km, Distt-South 24 Parganas.	162.59	-do-
6.	Raising & Strengthening of Sunderban embankment by armouring with 20 cm dry brick pitching at Mouza-Chandipur facing confluence of river Bidya & Kartal from 12.50 km to 13.10 km and from 13.20 km to 13.84 km P.S-Gosaba. Distt-South 24 Parganas.	165.99	- do -

BIHAR

Sl.No.	Name of Schemes	Estimated cost (Rs.in lakh)	Status
1.	Anti-erosion scheme at u/s of Vikramshila bridge near village Khairpur and Raghapur on left bank of Ganga	1356.82	Cleared
2.	Raising and Strengthening of Sanha Gorgawan and Gupta Lakhmania embankment on the left bank of river Ganga in the district of Begusarai (Bihar)	693.70	Comments sent to state Government for compliance.
3.	Raising and Strengthening of Tirhut Embankment on the left bank of river Gandak for critical reaches.	750.00	Cleared
4.	Raising and Strengthening of Burhi Gandak embankment from 0 km to 19 km on both banks	722.00	Cleared.

JHARKHAND

S.N.	NAME OF SCHEMES	Estimated cost in Rupees lakh	Remarks
1.	Scheme for anti erosion works on the river Ganga from Sahebganj to Majhartola in Jharkhand State	706.436	Cleared

CHAPTER VII

INTERNATIONAL COOPERATION

Several rivers like the Gandak, the Bagmati, the Kamla, the Kosi etc. originate in Nepal and flow through the hilly tracts of Nepal before entering the plains of India. Heavy rains in the upper reaches not only bring floods of large magnitude but also deposit huge quantities of sediment in the plain reaches of India. Hence any measures to be taken up to alleviate the flood & silting problem are to be done in an integrated manner with proper co-ordination between the two countries. GFCC is playing a vital role in this context by providing all the technical know-how and guidance.

7.1 Standing Committee on Inundation Problems between India & Nepal (SCIP)

Some structural measures taken up by the State Governments of Uttar Pradesh, Bihar and HMG Nepal in the border areas result in inundation of border areas in Nepal and India respectively. To overcome these problems, a Standing Committee on Inundation Problems between India and Nepal was set up in 1986, in pursuance of decisions taken by the Prime Minister of India and His Majesty the King of Nepal during their discussions at Dhaka on 8th December, 1985 for dealing with problems relating to inundation on a continuing basis.

Originally, the committee consisted of eight members, four from India and four from Nepal. Govt. of India's side comprised of Chairman, GFCC as the Team leader Indian Side, a Chief Engineer from Bihar as Member, Chief Engineer from U.P as Member and Director, GFCC as Member-Secretary. Similarly, HMG Nepal side comprised of Director General, Hydrology and Meteorology as the Team leader Nepal Side, Director, Western Regional Irrigation Directorate, Pokhara as Member, Director, Eastern Regional Irrigation Directorate, Biratnagar as Member and Director, Central Regional Irrigation Directorate as Member-Secretary. The membership of both sides of the committee has been enlarged from time to time. On Indian side Commissioner (ER), Ministry of Water Resources, Chief Bridge Engineer, NE Railway, Gorakhpur and Chairman, North Bengal Flood Control Commission, West Bengal have since been included.

Fourteen meetings of this committee have been held. The fourteenth meeting was held at Patna from 29th August, 2006 to 1st September, 2006. The various outstanding issues relating to inundation problems along Indo-Nepal border were discussed in this meeting and important decisions were taken to facilitate early solution of the problems.

7.2 India-Nepal Sub-Committee On Embankment Construction (SCEC)

Government of India and His Majesty's Government of Nepal have agreed to extend the embankments on rivers Lalbakeya, Bagmati, Kamla and Khando in the two countries. To undertake this work, two India-Nepal Joint Teams namely Joint Team of Experts and the Joint Committee on Embankment Construction were constituted in 1991

and 1996 respectively . The India-Nepal Joint Committee on Water Resources (JCWR) during its first meeting held in October, 2000 decided to merge the Joint Team of Experts and the Joint Committee on Embankment Construction to form the India-Nepal Sub-committee on Embankment Construction. Accordingly, India-Nepal Sub-Committee on Embankment Construction (SCEC) was set up in January,2001 to facilitate and monitor the construction activities in Nepal portion. Member, GFCC is the team leader of the Indian side and Director, GFCC is the Member-Secretary. Other members include the representatives of Ministry of External Affairs, Ministry of Water Resources, Government of India and Government of Bihar.

The terms of reference of the Sub-committee are :

- (i) To approve Planning, design and construction of embankments.
- (ii) To approve and recommend for investment clearance of the schemes.
- (iii) To approve the tenders and construction programme and funding schedule.
- (iv) To monitor the utilization of the assistance by periodic inspection of works at site.
- (v) To recommend release of funds from time to time.
- (vi) To provide guidance in the settlement of disputes/claims of contractors, if any.

So far seven meetings of the Sub-Committee have been held. The sixth meeting was held at Kathmandu during 13th-17th June 2004 during which the committee took a number of decisions regarding the construction of embankments on the rivers Lalbakeya, Bagmati and Kamla in Nepal Portion. The Sub –Committee approved the tender of Construction of remaining works of Lalbakeya embankment and recommended the release of NR's 5.00 crore for Bagmati works. Discussion was also held on the progress of DPR for Kamla river and Khando rivers. The seventh meeting was held at Birgunj during 5th -7th May 2005 . SCEC approved the tender for the construction of Anti-Flood sluices under package B of Bagmati Embankment. It was decided in the meeting that finalization of protection/drainage works under package C and D would be taken up and executed before flood of 2006. SCEC recommended NR's 4.4 crore for works on Bagmati and Lalbakeya embankment . It was also agreed to investigate the claims of contractor for price adjustment due to changes in the cost of construction materials and various other reasons. Nepalese side also briefed the SCEC on DPR for Kamla river and handed over two copies of DPR to the Indian side for their consideration and necessary action. Progress of preparation of DPR of embankment on Khando river was also discussed during seventh meeting.

CHAPTER VIII

PROMOTION OF USE OF HINDI

8.1 PROGRESSIVE USE OF HINDI

An Official Language Implementation Committee is constituted in Ganga Flood Control Commission headed by the Chairman, GFCC. Both Members of GFCC and various Directors, Deputy Directors, Administrative Officer, P.S. to Chairman, Assistant Director (Gr.II), Hindi Translator and Branch heads from GFCC besides Dy. Director (Implementation), Official Language, Ministry of Home Affairs and one officer from Hindi Teaching Scheme are its members. Hindi Officer of the Commission is Member Secretary of this committee. This Committee is required to hold its meetings once every quarter. In these meetings, detailed discussions are held on the quarterly progress reports and emphasis is given on achieving the targets laid down in the annual programme. This committee makes an assessment of actual position of progressive use of Hindi in day to day work of the commission and suggest measures for removing the difficulties experienced at the working levels. During the year 2006-07, 04 meetings of the Committee were held.

Chairman, GFCC is a Member of Hindi Salahkar Samiti, Ministry of Water Resources and “Nagar Rajbhasa Karyanvan Samiti”, Patna. Chairman or any senior officer of this commission participates in the above committee’s meetings regularly.

8.2 ACHIEVEMENTS

8.2.1 ACHIEVEMENTS DURING 2006-07

During the year 2006-2007 generally all office orders were issued in both languages i.e. Hindi and English. During the year 2006-2007 out of 8439 letters issued by GFCC, 5011 were in Hindi. The region-wise break up is given below:

S.No.	Region	Total letters issued	Letters issued in Hindi
1	A	8186	4878
2	B	61	39
3	C	192	94
	Total	8439	5011

To increase the awareness of use of Hindi language, Hindi Fortnight was organized from 1.9.2006 to 14.9.2006 in 2006-07. Competitions for Hindi Essay, Hindi noting and drafting and Hindi typing were organized among officials of this commission during this period. After evaluation, prizes were distributed among the winners.

The following officials of the Commission were awarded prizes:

(a) Hindi Essay Writing Competition		
Sl.No.	Name/Post	Prizes
1.	Shri Mukesh Kumar Singh, LDC	Ist
2.	Shri Rajeev Kumar Pandey, Stenographer	IInd
3.	Shri Mukesh Kuamr Sinha, Stenographer	IIIrd
4.	Shri Sukumar Khan, UDC	Consolation Prize

(b) Hindi Typing Competition		
Sl.No.	Name/Post	Prizes
1.	Shri Laddu Lal Mahto, LDC	Ist
2.	Shri Anand Kumar, Stenographer	IInd
3.	Shri Mukesh Kumar Sinha, Stenographer	IIIrd
4.	Shri Pramod Kumar, LDC	Consolation Prize

(c) Hindi Noting/Drafting Competition		
Sl.No.	Name/Post	Prizes
1.	Shri Mukesh Kumar Singh, LDC	Ist
2.	Shri Mukesh Kumar Sinha, Stenographer	IInd
3.	Shri Rajeev Kumar Pandey, Stenographer	IIIrd
4.	Shri Dilip Kumar Singh, Jr. Computer	Joint Winner IIIrd

(d) Hindi Stenography Competition		
Sl.No.	Name/Post	Prizes
1	Shri Anand Kumar, Stenographer	Ist
2	Shri Mukesh Kumar Sinha, Stenographer	IInd
3	Shri Rajeev Kumar Pandey, Stenographer	IIIrd
4.	Shri Laddu Lal Mahto, LDC	Joint Winner IIIrd

(e) General Hindi / Competition (For "Grade- D" Staff only)		
Sl.No.	Name/Post	Prizes
1	Shri Grija Kant Poddar, Khalasi	Ist
2	Shri Rabindra Ram, Peon	IInd
3	Shri Indradeo Paswan , Peon	IIIrd

Incentive scheme for doing original Hindi noting/drafting in official work is effectively introduced in the commission. During the year , cash award was given to the following five officials based on the work rendered by them in Hindi:

1. Md. Tufail Ahmed, U.D.C – Ist Prize
2. Shri Pappu Lal, LDC - Ist Prize
3. Shri Jitender Kumar, UDC – IInd Prize
4. Shri Pramod Kumar, LDC – IInd Prize
5. Shri Laddu Lal Mahto, LDC – IInd Prize

CHAPTER IX

PARTICIPATION IN TRAININGS, WORKSHOPS AND SEMINARS

9.1 Training/Workshop/Seminar attended by GFCC officials :

During the year 2006-07, officers & staff of GFCC participated in various training programmes, workshops and seminars. The details are given below :

Sl. No.	Training Course/Workshop/Seminar	Dates	Name of Officers	Remarks
1.	Professional Development Workshop for P.S at ISTM, New Delhi	06.11.06 to 10.11.06	Sh. S.N.Lall PS to Chairman	Participant
2.	Seminar on Role of GFCC in flood management in Ganga basin at National Water Academy, Pune.	23.11.06	Sh.Bibhas Kumar, Director	Delivered a lecture on the subject.
3	Workshop on First-Indian Disaster Management Congress at Institute of Disaster management, New Delhi	29.11.06 to 30.11.06	Sh.Awadhesh Sharma, Dy.Director Sh.Mukesh Kr.Singh, Dy.Director, Sh.S.M.Shad, Asstt.Director	Participants
4.	Training course on Introduction to MS Excel at ISTM, New Delhi	08.01.07 to 10.01.07	Sh.Dilip Kumar Singh Jr.Computer Sh.M.K.Singh LDC	Participants
5.	Training course on Introduction to Window & Microsoft Word at ISTM, New Delhi.	22.01.07 to 25.01.07	Sh.K.K.Choudhary, Hindi Translator Sh.Tufail Ahmed, UDC	Participants
6.	Professional Development Workshop for P.S at ISTM, New Delhi	05.02.07 to 09.02.07	Sh.Awinash Kumar PS to Member(C)	Participant

CHAPTER X

REPRESENTATION OF GANGA FLOOD CONTROL COMMISSION IN VARIOUS COMMITTEES

Chairman, GFCC and Members, GFCC are representing GFCC on various technical committees either as Chairman, Member-Secretary or as Members. The list of various committees on which GFCC officers are represented is given below:

Sl. No.	Name of Committee/ Board/ Experts/ Technical Group etc.	Designation of officer of GFCC	Position of GFCC officer in the Committee/ Board/ Experts/ Technical Group etc.
1.	Ganga Flood Control Board	Chairman, GFCC	Member-Secretary
2.	Ganga Flood Control Commission	Chairman, GFCC	Chairman
3.	India-Nepal Joint Committee on Water Resources (JCWR)	Chairman, GFCC	Member
4.	Standing Committee on Inundation Problems (SCIP) between India and Nepal	Chairman, GFCC	Indian Team Leader
5.	Indian National Committee on Hydraulic Research	Chairman, GFCC	Member
6.	Gandak High Level Standing Committee	Chairman, GFCC	Chairman
7.	Kosi High Level Committee	Chairman, GFCC	Chairman
8.	National Institute of Hydrology Society	Chairman, GFCC	Member
9.	Sahibi Standing Committee	Chairman, GFCC	Member
10.	U.P. State Committee of Engineers	Chairman, GFCC	Member
11.	Bihar State Committee of Engineers	Chairman, GFCC	Member
12.	West Bengal State Committee Of Engineers	Chairman, GFCC	Member
13.	M.P. State Committee of Engineers	Chairman, GFCC	Chairman
14.	Committee on siltation of rivers in India.	Chairman, GFCC	Member
15.	T.A.C. of Farakka Barrage Project	Chairman, GFCC	Member
16.	T.A.C. of Uttar Pradesh	Director, GFCC	Member
17.	T.A.C. of Himachal Pradesh	Director, GFCC	Member
18.	T.A.C. of Haryana	Director, GFCC	Member
19.	T.A.C. of Rajasthan	Director, GFCC	Member
20.	T.A.C. of Bihar	Director, GFCC	Member
21.	T.A.C. of West Bengal	Director, GFCC	Member
22.	TAC of Jharkhand	Director, GFCC	Member
23.	TAC of Uttarakhand	Director, GFCC	Member
24.	TAC of Chhattisgarh	Director, GFCC	Member
25.	T.A.C. of Madhya Pradesh	Member, GFCC	Member

26.	India-Nepal Sub-Committee on Embankment Construction (SCEC)	Member, GFCC	Indian Team Leader
27.	India-Nepal Joint Team of Experts (JTE) for Saptha Kosi Project	Member, GFCC	Member
28.	Yamuna Committee	Member, GFCC	Member
29.	R.V.D. 68, BIS, New Delhi	Member, GFCC	Member
30.	Coastal Protection And Development Advisory Committee	Member, GFCC	Member
31.	NNRMS Standing Committee on Water Resources (SC-WR)	Member, GFCC	Member
32.	NIH Regional Coordination Committee for Ganga Plain North Regional Centre	Representative of Chairman, GFCC	Member