

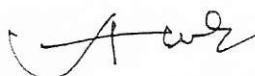
RECORD OF DISCUSSIONS OF THE FORTY- SIXTH (46th) MEETING OF
THE JOINT COMMITTEE ON SHARING OF THE GANGA/GANGES WATERS
AT FARAKKA BETWEEN INDIA AND BANGLADESH
HELD IN NEW DELHI ON 4th & 5th SEPTEMBER, 2010

1. The 46th meeting of the Joint Committee on sharing of the Ganga/ Ganges waters at Farakka was held in New Delhi on September 04-05, 2010.
2. The Indian delegation was led by Shri S.P. Kakran, Commissioner (Ganga), Ministry of Water Resources, Government of the Republic of India and Member, Indo-Bangladesh Joint Rivers Commission and Chairman, Joint Committee. The Bangladesh delegation was led by Mr. Mir Sajjad Hossain, Member, Indo-Bangladesh Joint Rivers Commission, Ministry of Water Resources, Government of the People's Republic of Bangladesh, and Co-Chairman, Joint Committee. The list of participants is given at Annex-I.
3. At the outset of the meeting, the Team Leader of Indian side welcomed the Bangladesh Team Leader and his delegation in New Delhi for the 46th meeting of the Joint Committee. The Bangladesh Team Leader expressed his sincere thanks to the Indian Team Leader for making excellent arrangements for their stay in New Delhi.
4. The Joint Committee appraised the working arrangements of sharing the dry season flows of the Ganga/Ganges at Farakka from 1st January to 31st May, 2010 and monitoring thereof by the Indo-Bangladesh Joint Observation Teams stationed at Farakka in India and at Hardinge Bridge in Bangladesh.
5. The Committee examined the field data collected during the period from 1st January to 31st May, 2010 and noted that these were collected in accordance with the procedures and guidelines laid down by the Committee at its First Meeting held in Dhaka in December, 1996.
6. During discussions in the meeting, the Bangladesh side referred to the flow availability at Farakka during the current dry season from 1st January


Amr

dh

to 31st May, 2010. In this regard the Bangladesh side pointed out that the issue was also discussed in the 44th meeting of the Joint Committee held at Kolkata on 11th February, 2010 while Bangladesh received less quanta of water at Farakka than its share as given in the indicative schedule in four 10-day periods out of four from 1st 10-day period of January to 1st 10-day period of February, 2010. Bangladesh, however, observed with concern that the flow availability at Farakka were also less than the 40 years average availability in subsequent 10-day periods and Bangladesh consequently received less quanta of water than its share as per indicative schedule from 2nd 10-day period of February, 2010 to 3rd 10-day period of May, 2010. The Bangladesh side received less quanta of water on 12 occasions out of 15 except three guaranteed 10-day periods during 2010 lean period. Bangladesh side also pointed out that out of total 210 (Two hundred ten) 10-day periods from 01 January, 1997 to 31 May, 2010, Bangladesh has received less quanta of waters of the Ganges at Farakka than its share as per indicative schedule in 95 (ninety five) occasions. This has adversely affected the Ganges dependent areas in Bangladesh. The Bangladesh side in this regard referred to Article-II (ii) which states that "The indicative schedule at Annexure-II, as referred to in sub para (i) above, is based on 40 years (1949-1988) 10-day period average availability of water at Farakka. Every effort would be made by the upper riparian to protect flows of water at Farakka as in the 40 years average availability as mentioned above". It is expected from the above Article that every effort would be made by the upper riparian (India) to protect the flows at Farakka in each 10-day period as per 40 years (1949-88) average flows, so that, Bangladesh receives its share at Farakka as per the figures given at Annexure-II of the Treaty in each 10-day period. The Bangladesh side enclosed a comparative statement along with graphical representation of flows received by Bangladesh from 01 January to 31 May, 2010 at Farakka vis a vis its share as per 40 years average availability given at **Annex-II** for reference. In this context, the Bangladesh side requested the Indian side to maintain the total availability at Farakka as per figures given in the indicative schedule so that Bangladesh may receive its share as per the indicative schedule in future.

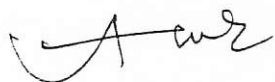


7. Indian side clarified that -
- (i) Actual sharing of Ganga/Ganges waters between India and Bangladesh depends upon the inflows available at Farakka; and it is divided with reference to the formula mentioned at Annexure-I of the Treaty. Accordingly, the Joint teams were stationed at Farakka measuring the Ganga/Ganges waters in the lean season and dividing it as per the formula given in Annexure-I at all times, to the utmost satisfaction of both sides and in a highly transparent manner.
 - (ii) The lean season inflows received in the year 2010 (January – May) were less than the figures shown in Indicative Schedule of Annexure- II due to the adverse hydro-meteorological conditions in the upper catchment area and, as a result, the Indian side has also received less water on 08 (Eight) occasions than the Indicative Share shown in the Annexure-II of the Treaty. As such, both sides have got less water in the year 2010.
 - (iii) Further, the respective share of each party shown in the Indicative Schedule under Ganga/Ganges Treaty can only be adhered to "if actual availability of water (inflows at Farakka) corresponds to the average flows of the period observed during 1949 to 1988" (Reference – Introductory Para of the Indicative Schedule).
 - (iv) The Indicative Schedule does not provide any guarantee that either party would get the water every year as mentioned therein but only indicates the respective share of each party if the actual flow(s) corresponds to the average flows' schedule. In fact, it can be possible only 50% of the years (as it is only average line).
 - (v) During the period of years 1949-88 also, the minimum inflows observed in the river Ganga/ Ganges at Farakka, were quite different than the average values of Indicative Schedule. There are only 47% (278 out of 600) successful periods, when the actual flows remain equal or higher than the average values.
 - (vi) So long as the actual flows in a particular year fall within a band of maximum & minimum observed flows of 1949-88 (40 years data), as shown in **Annex-III**, this may be accepted as a normal pattern.
 - (vii) As such, the position of Bangladesh side is not the correct reflection of the sharing arrangements of Ganga/Ganges water as per the Ganga/Ganges Treaty; which is being followed by Indian side in letter and spirit.



(VIII) According to the Indicative Schedule, total inflows at Farakka are estimated as 28.60 BCM in the lean season; out of which, the Bangladesh share is 15.03 BCM and Indian share is 13.57 BCM. Based upon the joint measurements in the last 14 years (1997-2010), the average inflow(s) at Farakka in lean season were found 29.27 BCM and Bangladesh side got 16.01 BCM of water against their share of 15.03 BCM.

8. The Joint Committee held in-depth discussions with regard to the implementation of the arrangements contained in the Treaty of December, 1996 for sharing the Ganga/Ganges waters at Farakka between Bangladesh and India for the dry season of 2010. After detailed discussions, the Joint Committee finalized its Annual Report of the year 2010 for submission to the respective Governments.
9. It was decided that before commencement of joint observations in the next dry season the Committee should, at the onset of the dry season, decide upon the location of the measurement sites at Farakka in India and at Hardinge Bridge in Bangladesh by considering suitability of alternative sites, if required, taking into consideration of Vertical Velocity Distribution (VVD), Horizontal Velocity Distribution (HVD), Mass Curve and other relevant factors.
10. The Joint Committee wishes to express its special thanks and deep gratitude for the assistance, co-operation and courtesy received from various Government Departments, Institutions and Organizations including Ministry of Water Resources, Government of India, Ministry of External Affairs, Government of India, High Commission of India, Dhaka, Farakka Barrage Project Authority, Central Water Commission (CWC) and Government of West Bengal in India and Ministry of Water Resources, Government of the People's Republic of Bangladesh, Ministry of Foreign Affairs, Government of the People's Republic of Bangladesh, Bangladesh High Commission, New Delhi, Bangladesh Deputy High Commission, Kolkata, Kushtia O & M Circle, Surface Water Hydrology



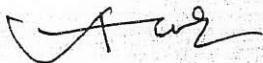
Circle and other offices of Bangladesh Water Development Board in Bangladesh.

11. The Joint Committee decided to place on record the commendable work done by the members of the Joint Observation Teams both at Farakka in India and at Hardinge Bridge in Bangladesh without which it would not have been possible for the Joint Committee to carry out its functions efficiently.
12. The Committee decided to undertake its next visit to the joint observation site at Bheramara (Hardinge Bridge) in Bangladesh and hold its 47th meeting in Dhaka in January, 2011 on mutually convenient dates.

New Delhi
September 05, 2010

Sd/-

(MIR SAJJAD HOSSAIN)
Co-Chairman



Sd/-

(S.P. KAKRAN)
Chairman



ANNEX - I

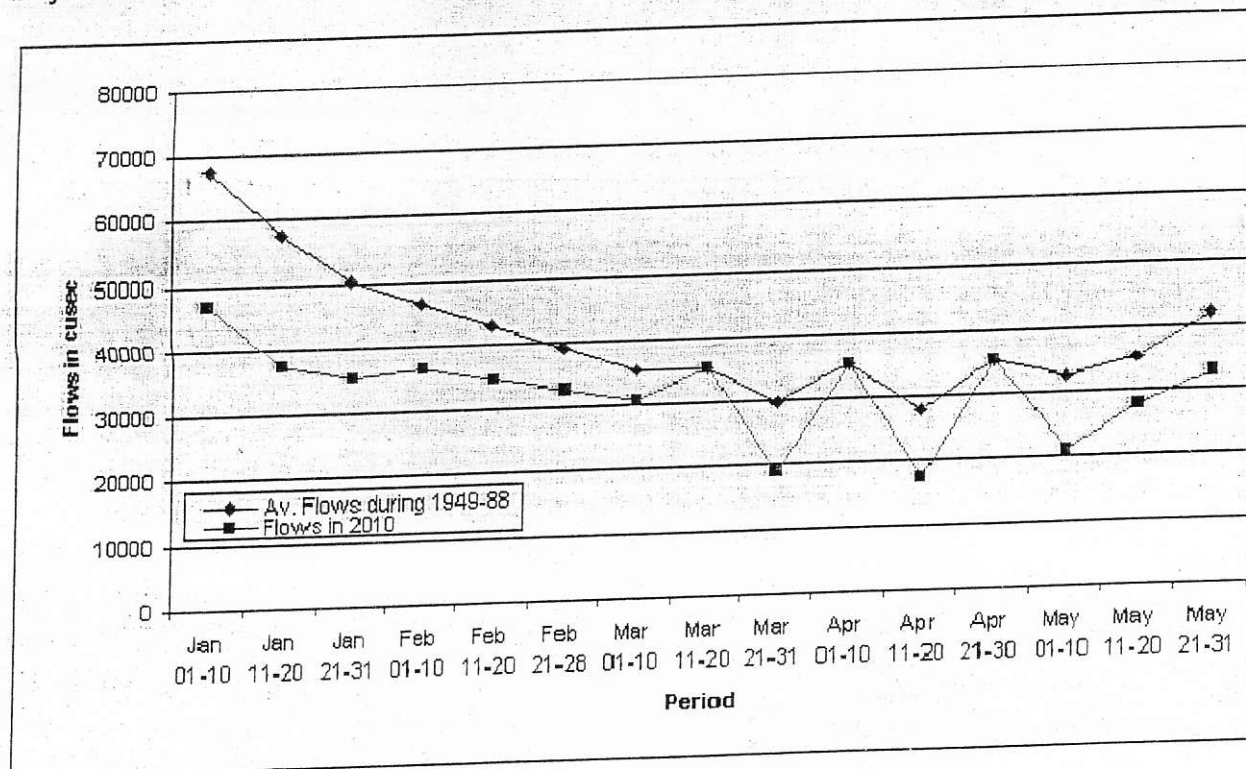
Sl. No.	Indian Delegation		Bangladesh Delegation	
1.	Mr S P Kakran Commissioner (Ganga) and Member, Indo-Bangladesh Joint Rivers Commission	Leader of the Delegation	Mr Mir Sajjad Hossain Member, Indo-Bangladesh Joint Rivers Commission	Leader of the Delegation
2.	Mr T. S. Mehra Senior Joint Commissioner (Ganga) Ministry of Water Resources	Member	Mr. A. H. M. Kausher Chief Engineer, Hydrology Bangladesh Water Development Board	Special Invitee
3.	Mr S. K. Thakur Director Finance, Ministry of Water Resources	Special Invitee	Mr. Md. Ahasan Ullah Director, Joint Rivers Commission, Bangladesh	Member
4.	Mr A. K. Goyal Director, Hydrology Central Water commission	Special Invitee	Mr. Mahbub Hassan Saleh Counsellor Bangladesh High Commission New Delhi	Special Invitee
5.	Ms Smita Pant Deputy Secretary (BD) Ministry of External Affairs	Special Invitee	Mr. Md. Mofazzal Hossain Executive Engineer, Joint Rivers Commission Bangladesh	Member
6.	Mr M. S. Varma Deputy Commissioner (Ganga) Ministry of Water Resources	Member	Syeda Farhana Kawnine Senior Assistant Secretary Ministry of Water Resources	Special Invitee
7.	Mr. Arun Kalra Section Officer (Ganga) Ministry of Water Resources	Special Invitee		




ANNEX II

Comparative statement of flows received by Bangladesh at Farakka during 2010 vis-à-vis share of Bangladesh based on average flows of 1949-88

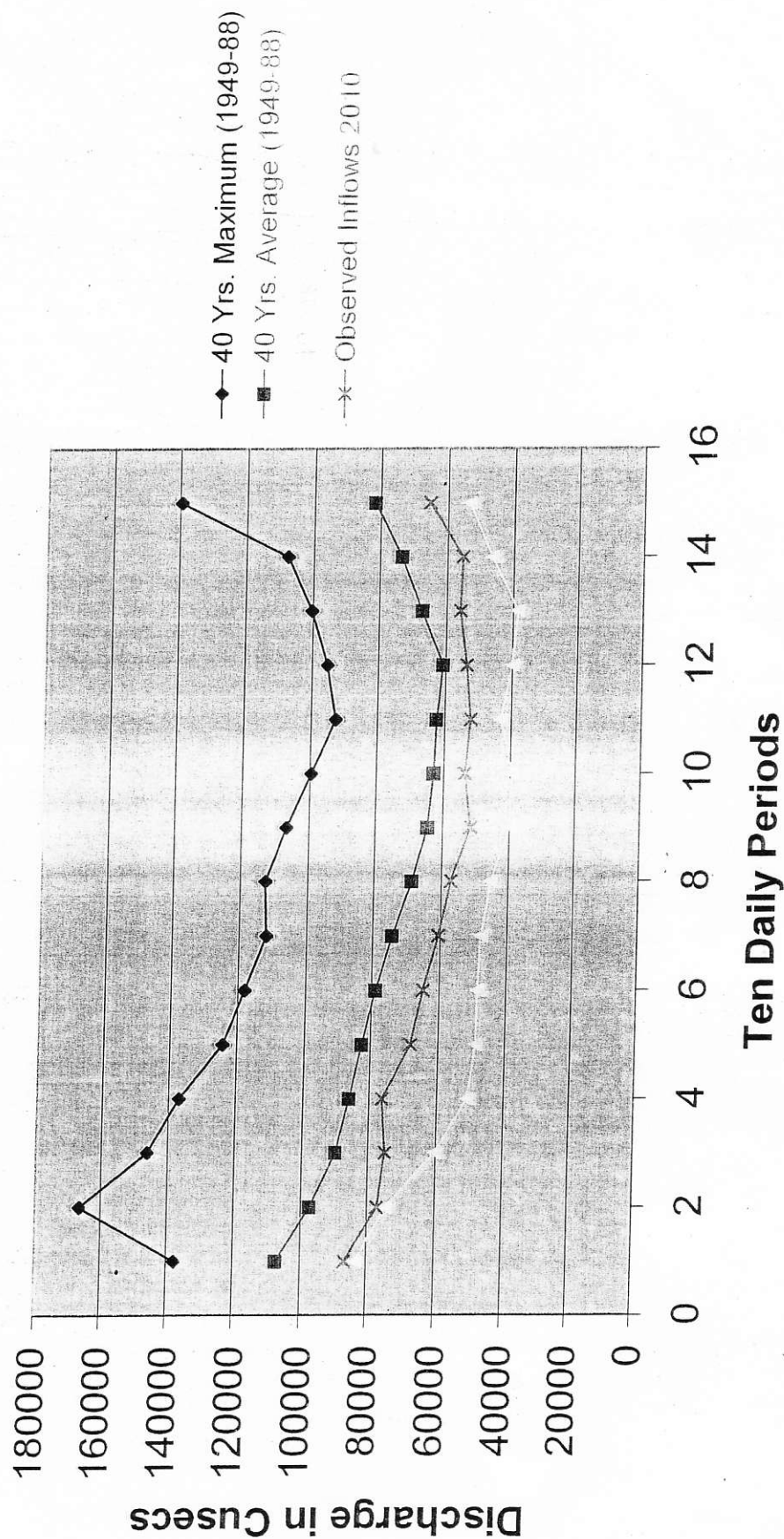
Period	Share of Bangladesh at Farakka based on average flows 1949-88 (cusec)	Flows received by Bangladesh at Farakka in 2010 (cusec)
Jan 01-10	67516	46720
Jan 11-20	57673	37204
Jan 21-31	50154	35048
Feb 01-10	46323	36266
Feb 11-20	42859	34054
Feb 21-28	39106	32412
Mar 01-10	35000	30371
Mar 11-20	35000	35000
Mar 21-31	29688	18769
Apr 01-10	35000	35000
Apr 11-20	27633	17191
Apr 21-30	35000	35000
May 01-10	32351	20791
May 11-20	35000	27634
May 21-31	41854	32675



Amr

AM

Flows of River Ganga at Farakka during Lean period



Handwritten signature

Handwritten signature

COMPOSITION OF THE JOINT TEAM AT FARAKKA FOR THE YEAR 2010

INDIAN SIDE

1. Shri M. K. Saha
Executive Engineer,
Lower Ganga Division,
CWC, Berhampore.
(01.01.2010 to 30.04.2010)
2. Shri R. N. Yadav
Executive Engineer,
Lower Ganga Division,
CWC, Berhampore.
(01.05.2010 to 31.05.2010)
3. Shri A. K. Hazra
Assistant Engineer,
Lower Ganga Sub-Division,
CWC, Farakka.
(01.01.2010 to 31.05.2010)
4. Shri K. K. Dev
Junior Engineer,
Lower Ganga Sub-Division,
CWC, Farakka.
(01.01.2010 to 31.05.2010)
5. Shri S. C. Roy
Junior Engineer,
Lower Ganga Sub-Division,
CWC, Farakka.
(01.01.2010 to 31.05.2010)
6. Shri P. K. Dhali
Research Assistant,
Lower Ganga Sub-Division,
CWC, Farakka.
(01.01.2010 to 31.05.2010)
7. Shri A. K. Yadav
Work Sarkar Gr.-II
Lower Ganga Sub-Division,
CWC, Farakka.
(01.01.2010 to 31.05.2010)
8. Shri Palash Chandra Das
Work Sarkar Gr.-II
Lower Ganga Sub-Division,
CWC, Farakka.
(01.01.2010 to 31.01.2010 & 01.03.2010
to 30.04.2010)
9. Shri Alope Kumar Das
Work Sarkar Gr.-II
B. J. Sub-Division,
CWC, Krishnagar
(01.02.2010 to 28.02.2010 & 01.05.2010
to 31.05.2010)

BANGLADESH SIDE

1. Mr. Md. Abdul Hye
Executive Engineer,
North-Eastern Measurement Division,
Bangladesh Water Development Board, Dhaka.
(01.01.2010 to 16.03.2010)
2. Mr. Mohammad Mahtab Hossain
Sub Divisional Engineer (In- charge)
Northern Measurement Division,
Bangladesh Water Development Board, Pabna.
(01.01.2010 to 15.03.2010)
3. Mr. Md. Riadur Ramman
Assistant Engineer,
Joint Rivers Commission,
Bangladesh.
(01.01.2010 to 16.03.2010)
4. Mr. Mohammad Arifuzzaman Bhuyan
Assistant Engineer,
Flood Forecasting and Warning Centre,
Bangladesh Water Development Board
Dhaka
(01.01.2010 to 15.03.2010)
5. Mr. Md. Jahid Hossain Jahangir
Executive Engineer
Joint Rivers Commission,
Bangladesh.
(16.03.2010 to 31.05.2010)
6. Mr. Ekramul Hoque Sarder
Executive Engineer,
South- Western Measurement Division,
Bangladesh Water Development Board,
Faridpur.
(17.03.2010 to 31.05.2010)
7. Mr. Arifuzzaman Khan
Sub - Divisional Engineer,
Joint Rivers Commission,
Bangladesh.
(16.03.2010 to 31.05.2010)
8. Mr. Iftekhar Ahmed Dinar
Assistant Engineer,
Joint Rivers Commission,
Bangladesh.
(17.03.2010 to 31.05.2010)

APPENDIX -11

COMPOSITION OF THE JOINT TEAM AT HARDINGE BRIDGE DURING 2010

INDIAN SIDE

1. Shri Shyam Narayan Singh,
Deputy Director, Monitoring (S) Dte., CWC
Room No.402(S), Sewa Bhawan,
R. K. Puram, New Delhi
(01.01.2010 to 20.02.2010)
2. Shri Shiva Prakash,
Deputy Director, Monitoring & Appraisal Dte.,
Central Water Commission, Bhoi Nagar,
Bhubaneswar,
Orissa.
(21.02.2010 to 10.04.2010)
3. Shri K. K. Saha,
Executive Engineer,
Lower Brahmaputra Division,
Central Water Commission, Hakimpara,
Jalpaiguri, West Bengal.
(11.04.2010 to 31.05.2010)
4. Shri Sunil Kumar Sinha
Assistant Commissioner, Ganga Wing,
Ministry Of Water Resources,
New Delhi
(01.01.2010 to 20.02.2010)
5. Shri Majety Ravi
Sub Divisional Engineer,
NEID-1, Central Water Commission,
Rangpur. Part I
Silchar, Assam
(21.02.2010 to 10.04.2010)
6. Shri Manoj Kumar
Sub Divisional Engineer,
Upper Baraker Sub Division
Central Water Commission, Maithon Dam,
Dhanbad, Jharkhand
(11.04.2010 to 31.05.2010)

BANGLADESH SIDE

1. Mr. Md. Kabibur Rahman,
Executive Engineer,
Northern Measurement Division,
Bangladesh Water Development
Board, Pabna.
(01.01.2010 to 20.03.2010)
2. Mr. Md. Mukhlesur Rahman,
Executive Engineer,
Northern Measurement Division,
Bangladesh Water Development Board,
Pabna.
(21.03.2010 to 31.05.2010)
3. Mr. Mohammad Mahtab Hossain
Sub Divisional Engineer (In-charge)
Northern Measurement Division,
Bangladesh Water Development Board,
Pabna.
(21.03.2010 to 31.05.2010)
4. Mr. Md. Mofazzal Hossain
Section Officer, Bheramara,
Northern Measurement Division,
Bangladesh Water Development Board,
Pabna.
(01.01.2010 to 31.05.2010)
5. Mr. Md. Rezaul Karim
Surveyor Section Officer, Bheramara,
Northern Measurement Division,
Bangladesh Water Development Board,
Pabna.
(01.01.2010 to 31.05.2010)