MEMORANDUM OF UNDERSTANDING

Between the Ministry of Water Resources of the People's Republic of Bangladesh and the Ministry of Water Resources of the People's Republic of China upon Provision of Hydrological Information of the Yaluzangbu/Brahmaputra River in Flood Season By China to Bangladesh

The Ministry of Water Resources, Government of the People's Republic of Bangladesh, and the Ministry of Water Resources, the People's Republic of China, (hereinafter referred to as the "two sides"),

Recognizing that timely and reliable hydrological information in upstream of Yaluzangbu/Brahmaputra River in flood season is crucial to meet the demand of flood control and disaster mitigation in downstream area of the river;

Based on the Memorandum of Understanding signed by the two sides on cooperation in the field of water resources on 18 August 2005 and the Memorandum of Understanding signed by the two sides upon Provision of Hydrological Information of the Yaluzangbu/Brahmaputra River in Flood Season By China to Bangladesh on 16 September 2008;

Willing to provide the hydrological information of Yaluzangbu/Brahmaputra River in flood season by China to Bangladesh;

Have agreed as follows:

- 1. The two sides agree that based on friendly cooperation, mutual benefit, good faith and equality, in accordance with respective laws and regulations, the Chinese side will provide the Bangladeshi side with the hydrological information of Yaluzangbu/Brahmaputra River in flood season.
- 2. The Chinese hydrological stations, which will provide hydrological information in flood season to the Bangladeshi side, include Nugesha, Yangcun, and Nuxia station, lying on the mainstream of Yaluzangbu River.
- 3. The Chinese side agrees that China will provide Bangladeshi with information of water level, discharge and rainfall of 8:00 hrs and 20:00 hrs (Beijing Time)/6:00 hrs and 18:00 hrs (Dhaka Time) twice a day from May 15th to October 15th each year. The Chinese side also agrees to

timely provide hydrological information to the Bangladeshi side if values of water level exceed mutually agreed value during the non-flood season.

- 4. The Chinese side agrees to shoulder the cost for provision of hydrological information to Bangladesh in flood season.
- 5. The Chinese side's implementing agency is the Bureau of Hydrology and Water Resources, Tibet Autonomous Region of China. The Bangladeshi side's implementing agency is the Joint Rivers Commission, Ministry of Water Resources, Government of the People's Republic of Bangladesh.
- 6. The implementing agencies will discuss and sign the Implementation plan of provision of hydrological information. The major content of the Implementation plan includes technical details of provision of hydrological information, data transmission method and so on.
- 7. The present Memorandum shall become effective from the day of its signature by the duly authorized representatives of the two sides and shall remain in force for a period of five years and be renewed thereafter for further period with mutual consent. The present Memorandum can be amended and modified with mutual agreement.

Signed at Dhaka, on June 8th, 2014, in duplicate in English and Chinese, both texts are equally authentic.

For Ministry of Water Resources Government of People's Republic of Bangladesh For Ministry of Water Resources People's Republic of China

如了

Implementation Plan

between the Joint Rivers Commission,

Ministry of Water Resources, Government of the People's Republic of
Bangladesh and the Bureau of Hydrology and Water Resources,
Tibet Autonomous Region, the People's Republic of China
on Provision of Hydrological Information of the Yaluzangbu/ Brahmaputra River
in Flood Season by China to Bangladesh

Based on the Memorandum of Understanding signed by the Ministry of Water Resources, Government of the People's Republic of Bangladesh and the Ministry of Water Resources, the People's Republic of China on Provision of Hydrological Information of the Yaluzangbu/Brahmaputra River in Flood Season by China to Bangladesh (hereinafter referred to as "MOU"). on 08th June, 2014, the Bangladeshi implementing agency-the Joint Rivers Commission, Ministry of Water Resources of Bangladesh and the Chinese implementing agency-the Bureau of Hydrology and Water Resources, Tibet Autonomous Region of China (hereinafter referred to as the "two sides") have reached the following agreements after mutual consultation:

- 1. The two sides agree that based on friendly cooperation, mutual benefit, good faith and equality, and in compliance with respective laws and regulations, the Chinese side will provide hydrological information of the Yaluzangbu/Brahmaputra River in Flood Season to the Bangladeshi side in accordance with the Chinese standards of hydrological monitoring and forecasting. The Bangladeshi side will provide the Chinese side with the effects of hydrological data on flood control and disaster mitigation in Bangladesh.
- 2. The hydrological information provided by the Chinese side in flood season will be supplied from three Chinese hydrological stations lying on the mainstream of the Yaluzangbu River, namely Nugesha (Latitude: 29°21'N, Longitude: 89°42'E), Yangcun (Latitude: 29°16'N, Longitude: 91°52'E) and Nuxia (Latitude: 29°28'N, Longitude: 94°34'E) stations.
- 3. The Chinese side will provide Bangladeshi side with hydrological information in flood season from May 15th to October 15th each year within 30 minutes after 8:00 hrs and 20:00 hrs (Beijing Time)/6:00 hrs and 18:00 hrs (Dhaka Time).

To guarantee timely provision of hydrological information on May 15th, the Chinese side will have a trial provision at 8:00 hrs (Beijing Time)/6:00 hrs (Dhaka Time) on May 12th each year, and the Bangladeshi side shall reply immediately.

In case of abnormal changes in water level and discharge taking place and other circumstances that might lead to sudden flood, the Chinese side agrees to share relevant information with the Bangladeshi side through diplomatic channels, if it's necessary and conditions for hydrological monitoring and information acquisition are permissive.

- 4. The Chinese side will provide the Bangladeshi side with information of water level, discharge and rainfall of the above three stations in flood season.
- The rainfall unit will be millimeter (mm). When round number is more than or equal to 1 mm, decimal points will use the method of half adjust. When rainfall data is less than 1mm or there is no rain, '0' (zero) will be presented. Rainfall data at 8:00 hrs (Beijing Time, the following time are the same with it) is the interval rainfall from 20:00 hrs of the previous day to 8:00 hrs of this day, and that at 20:00 hts is the interval rainfall from 8:00 hrs to 20:00 hrs of this day.
- The water level unit will be meter (m). The record with two decimal points will be provided. The assumed datum plane is used by every station. Value of assumed datum plane shall be supplied to Bangladeshi side at the beginning or subsequently when there is a change in assumed datum plane.
- 4.3 The discharge unit will be cubic meter per second (m³/s). When discharge data is more than or equal to 100 m³/s, the record will be provided only by round number. When discharge data is less than 100 m³/s and more than or equal to 10 m³/s, the record with one decimal point will be provided. When the discharge data is less than 10 m³/s, the record with two decimal points will be provided.
- 5. Discharge data can be derived from the water level-discharge relation curve which is developed from the mean average synthetic rating curve of previous years or the rating curve of the previous year before flood season. If water level exceeds the extent of relation curve, discharge data can be derived from the extended curve.

 $\boldsymbol{\varphi}$.

6. Contact address of the two sides:

The Bangladeshi side:

The Joint Rivers Commission, Ministry of water Resources of Bangladesh

E-mail: jrcombd@gmail.com

Fax: (+880)-2-9121596

Tel: (+880)-2-9121165

The Chinese side:

The Bureau of Hydrology and Water Resources, Tibet Autonomous Region of China

E-mail: xzswszyj@public.ls.xz.cn

Fax: (+86) 891 6352834

Tel: (+86) 891 6352834

- 7. Channel of provision: The Chinese implementing agency will transmit hydrological information to the Bangladeshi implementing agency directly.
- 8. Method of provision: The Chinese side will transmit hydrological information to the Bangladeshi side in the following form of text file by E-mail address at ffwc@ffwc.gov.bd via Internet.

****year**month**day**time hydrological information table

Station name	Rainfall (mm)	Water level (m)	Discharge (m ³ /s)
	***	**** **	****
Nugesha	***	****	***
Yangcun	***	****	***
Nuxia	***		

If the Bangladeshi side does not receive the data, it will inform the Chinese side by e-mail or fax immediately, and Chinese side shall send the data again.

The Bangladeshi side will provide the Chinese side (Department of International Cooperation
 & Science and Technology, Ministry of Water Resources, People's Republic of China) in

 φ

written form with the effects of Chinese provided data on flood control and disaster mitigation in Bangladesh before 15th April every year through diplomatic channel.

- 10. During the data provision period, if the Bangladeshi side has any other requirements, it should bring them forward to the Chinese side through diplomatic channels.
- 11. The Chinese side will cover additional staff, operation and maintenance costs for the provision of hydrological information of the above three stations to the Bangladeshi side.
- 12. In order to ensure normal provision of hydrological information, after mutual consultation and on the basis of equality, the two sides may dispatch hydrological experts to each other's country to conduct study tour if necessary.
- 13. This implementation plan shall become effective from the day of its signature by the authorized representatives of the two sides and remain in force when the MOU is effective.

Signed at Beijing on March 24th, 2015 in duplicate in Chinese and English, and both texts are equally authentic.

The Joint Rivers Commission,

Ministry of Water Resources,

Government of the People's Republic of Bangladesh

The Bureau of Hydrology and water Resources,

Tibet Autonomous Region,

The People's Republic of China