

**RIVER BASIN**

**PADMA**

**[ BANGLADESH ]**

**SCHEDULE A**  
**ASSESSMENT OF RIVER BASINS (RBs) IN SOUTH ASIA**

Sr. No	Details	Response
1.1	Name of River basin (also indicate regional names used);	The Ganges-Padma River (known as the Ganges in India) begins in the central Himalayas and flows 2,500 kilometers to the Bay of Bengal.
1.2	Relief Map and Index Map of RB with Country/ State/ Province boundary marked to be attached.	Refer Annexure 1
1.3	Geographical location of the place of origin (Country/District )	
1.4	Area (in Sq. Kms.),	It comprises 40,450 square km.
1.5	Population (in Millions); Name of population centers/ Cites ( duly marked on the map: refer 1.2) having Population - (a) More than 0.5 Million - 1 Million (b) More than 1 Million – 10 Million (c) More than 10 Million	
1.6	Approximate areas of upper regime, middle regime and lower regime;	
1.7	Country and States (Province) in which the basin lies (indicate % area covered);	Bangladesh (Kushtia, Jessore, Faridpur, Khulna, Barisal, and Patuakhali)
<b>2</b>	<b>Hydrological and Land use Features:</b>	
2.1	Average annual rainfall (in mm);	The mean annual rainfall is 2,000 millimeters (mm), of which approximately 70 percent occurs during the monsoon season. Rainfall generally varies in a

		northwest to southeasterly direction, increasing from a mean annual rainfall of 1,500 mm in the northeast to 2,900 mm in the southeastern corner.
2.2	Maximum-minimum temperatures in Degree Centigrade	The mean annual temperature is 26o Celsius (C) with peaks of over 30o C in May. Winter temperatures can fall to 10o C in January
2.3	Average annual yield (discharge) of water in Cubic Meter and the average yield for last past five years	11610 m <sup>3</sup> /sec
2.4	Major tributaries:	Mahananda is the only tributary of Ganges in Bangladesh
2.5	Percentage shares of major water uses & Surface and groundwater abstraction in percentages (a.)Agriculture, (b.) Industries, (c). Domestic, (d) environmental flows	770 cum / sec
2.6	Major cropping pattern	
2.7	Cultivable area under irrigation	1.28 Million hectare (South West region)
2.8	Cultivable area not under irrigation	1.67 million hectare (South
2.9	State other Water Uses- eg. Navigation, power, recreation etc.	DNA (Data Not Available)
<b>4</b>	<b>Water Quality</b>	
4.1	Prevailing water quality standards (e.g. Class I, II, III. etc, indicating permitted uses)	DO: 6.8-7.7, BOD: 1.1-1.7; pH: 7.4-8.3
4.2	Stretches (along the River) in Kms. with water quality classes indicated	
4.3	Sources of Pollution, with data indicating quantum and/or severity.	

4.4	Prevailing abatement techniques e.g: ETP, STP, legislation, etc.	
5	Current status of the resource development & potential for development	
5.1	Water availability:	9434 m <sup>3</sup> per capita/year (apprx 25840 liter per day)
	a. Per capita water availability (in lpcd )	
	b. Per hectare water availability (in Cubic meters for cultivable command area):	
	c. Availability of environmental flows (Current reserve, if any):	
	d. Availability of ground water/ Average annual ground water abstraction/recharge	1961 M m <sup>3</sup> (available GW recharge)
5.2	Structures:	
	a. Major dams/barrages (with utilization categories):	
	b. Proposed dams:	
	c. Live storage through proposed dams:	
	d. Inter basin transfer systems:	
	Command area of major dams	
5.3	Agencies functioning in the basins:	Bangladesh Water Development Board (BWDB)
5.4	a. Public agencies/ CSOs which construct/ implement the infrastructures projects:	
	b. Private agencies/ CSOs involved in infrastructure development	

6	Existence of National/State/Provincial Laws or Notifications relating to water- Management / use/development/opportunity for private sector participation or for privatization of water resources	National Water Management Plan (NWMP,2004), National Water Policy, 1999
7	Key Issues:	<ul style="list-style-type: none"><li>- Water sharing</li><li>- Water Act</li><li>- River flow management</li><li>- Water rights</li></ul>

**SCHEDULE B**  
**ASSESSMENT OF RIVER BASINS (RBs) IN SOUTH ASIA**

Sr. No	Details	Response
<b>1</b>	<b>Legal / Political Mandate</b>	
1.1	Is there any RBO? If yes, Give Name	Bangladesh Water Development Board (BWDB)
1.2	How has it been constituted? (Statutory/ Voluntary/ Any other form).	Yes
1.3	State objectives and organizational structure of the RBO in outline & enclose brochures	As the principal agency of the government for managing water resources of the country, it was given the responsibility of accomplishing the tasks of executing flood control, drainage and irrigation projects to boost up productivity in agriculture and fisheries.
1.4	Functioning level of the RBO (watershed/micro basin/sub-basin/basin, etc.) (eg. Upper Bhima Water Partnership, restricted to Bhima river flowing through the State of Maharashtra – A reference literature can be provided by Gomukh for comparison.	
	1. Does the RBO have the responsibility and technical capacity to coordinate integrated water resources planning in the basin?	

	2. Does the RBO have a proactive and efficient data management and information dissemination process to inform all stakeholders of basin conditions, water resource availability, and major issues?	
1.5	What are the major activities carried out by the RBO since inception?	<p>1. The G.K. Irrigation Project was conceived in 1954 to improve quality of life and economic solvency of the people living in greater Kushtia and Jessore district by achieving self-sufficiency in food through increasing agricultural productivity. It is the first and largest flood control, drainage improvement and irrigation project in Bangladesh.</p> <p>2. Chandpur Irrigation Project is located at the confluence of the Meghna &amp; Dakatia River. The area at the pre-project condition used to experience flood, draught and drainage congestion in every year.</p> <p>As a result, the living condition of the project people were in full of un-certainty. To solve the problem and improve the Socio-economic condition of the people, a multi purpose project which included flood control, drainage and irrigation facilities together with agricultural development was taken up during 1963. The physical work of the project was started during 1973 in full swing and completed during 1978 under IDA assistance costing Tk. 54.30 crores.</p>
1.6	What are the proposed activities of the RBO?	

1.7	Details of Contact person/s (Name, designation and contact numbers, address, & emails).	Director General, Bangladesh Water Development Board, WAPDA Building, Motijheel Commercial Area Dhaka -1000, Bangladesh.  Telephone: 9552194, 9564665 Fax number: 880-2-9564763 Email address: <a href="mailto:cm-bwdb@bangla.net">cm-bwdb@bangla.net</a>
1.8	Presence of a regulatory framework wherein national or regional supra basin authority regulates the functioning of the RBO (eg. Indus Commission).	Ministry of Water Resources
1.9	Legal/political mandate wherein stakeholders can appeal for redress/decision and conflict resolution	
1.10	Does the RBO have an appellate authority?	No
1.11	Is the RBO an autonomous body?	No
1.12	Is it regulated by a supra basin authority, if so, how?	Under legal procedure of the government
1.13	Is the RBO authorized to raise capital for management and/or implementation in open market? (Please elaborate the authorization).	No
1.14	Does the RBO receive direct budgetary grants? (From Govt./ Statutory Bodies/ Public donations/ Any Other Agencies.)	Yes. From the Government
1.15	Nature of mandate for delegation of powers	



	and/or functions (within RBO's constitution) to the lowest possible scales so as to encourage stakeholder participation. (Kindly elaborate the mode of delegation).	
1.16	Policy of the RBO on – (i) Water allocation between users/sectors/sub-basins; and	
	(ii) Procedures and processes for determining the above. (Kindly elaborate upon the above).	
1.17		On 12 December 1996, Bangladesh and India signed the Ganges Water Sharing Treaty
1.18	Presence of a 'Tribunal' appointed in case of intra basin or inter basin disputes (Kindly indicate name & nature of tribunal).	No
1.19	Is the RBO responsible for preparing Basin Management Plan. If yes, please enclose a copy ?	

**SCHEDULE C**

## ASSESSMENT OF RIVER BASINS (RBs) IN SOUTH ASIA

**Civil Society RBOs** ( CSOs working in River Basin issues or those physically involved in infrastructure development and articulating / advocating a River Basin perspective maybe be considered as Civil Society RBO. Please note that some of these organisation may not be calling themselves as RBOs. This is despite the fact that they function in most, if not all areas in which a statutorily constituted RBO operates)

1	<b>Center for Environmental and Geographic Information Services (CEGIS)</b>	<b>RBO : Public Trust</b>
Sr. No.	Details	Response
1.1	Constitution of the organization in terms of involvement of local action groups/initiatives, stakeholders, water users groups, and irrigation groups/committees, traditional water groups urban and industrial users etc. are a part of the organization);	CEGIS train and aware different groups for clients such as Bangladesh Water Development Board (BWDB), Local Government and Engineering Department (LGED), etc, as a service provider under development projects for the clients.
1.2	Reflection of basin perspective in the organization's constitution/past/planned work and activities?	WARPO has assigned CEGIS to conduct an impact assessment of India's River Linking Project (IRLP). Under the project CEGIS are going to assess the possible impacts of reduction of upstream flow on different sector of environment and also on socio-economic condition of the country. CEGIS generate information for the Flood Forecast Warning Center (FFWC). Other activities includes, Predicting River Bank Erosion along the Ganges and Padma Rivers, Community Flood Information system (CFIs) etc.
1.3	Scale of work: Sub-basin/basin scale?	CEGIS works at both sub-basin an basin level.
1.4	Consideration of upstream and downstream impacts of water management activities in the RB and issues like inequitable distribution of water between intra and inter sectors;	Under the IRLP project upstream and downstream water flow impacts will assessed.
1.5	Has the organization prepared a Basin Master ( Management) Plan? Does it contain elements different from or alternative to that of the government organizations?	CEGIS has provided expert inputs during preparation of the National Water Management Plan.
1.6	Efforts taken by the Civil Society RBO to upscale the vision/activities at basin level	Under the IRLP, CEGIS is going to assess the possible impacts of reduction of upstream flow on different sector of environment and also on socio- economic condition of the country. .
1.7	Participation in lobbying and advocacy at appropriate levels (provincial, national, international)	CEGIS actively participate in various forums at local, national, regional and international level.