

RIVER BASIN

GOMATI

[INDIA]

SCHEDULE A

ASSESSMENT OF RIVER BASINS (RBs) IN SOUTH ASIA

Sr. No.	Details	Response
1	Physical Features - General Information	
1.1	Name of River basin (also indicate regional names);	Gomati or Gumti River
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.	The Gomti originates near Madho Tada town of Pilibhit, India, from a pond known as Gomath Tal.(Source: Wikipaedia)
1.4	Area (in Sq. Kms.),	It extends 900 km (560 miles) through Uttar Pradesh, a state of India and meets the Ganga River near Saidpur city Gazipur district.
1.5	Population (in Millions); Name of population centers/ Cites (duely marked on the map: refer 1.2) having Population -	Cities of Lucknow, Sultanpur and Jaunpur are located on the banks of the Gomti. Population of Lucknow is: 2,541,101 , that of Sultanpur is: 100085 and Jaunpur is: 3911678 (Source: Census Report, 2001)
	(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;	Intermittent for the first 35 miles (56 km) of its course, becoming perennial after its junction with the Joknai.(Source: Encyclopaedia Brittanica, Gomati Irver).The river drains the area lying between river Ramganga and Sharda in the upper reaches and Ganga and Ghaghra at the lower reaches. After flowing southwards through the districts of Lucknow, Barabhanki, Sultanpur, Faizabad and Jaunpur, it confluences with River Ganga.(For further information on the course of Gomti, please refer to: http://sultanpur.nic.in/gom1.htm)
1.7	Country and States (Province) in which the basin lies (indicate % area covered);	The basin lies in Uttar Pradesh in India
2	Hydrological and Land use Features:	
2.1	Average annual rainfall (in mm);	Average rainfall o 60-100 cms, though this has been exceeded many times in the past years
2.2	Maximum-minimum temperatures in Degree Centigrade	20 degrees celsius to 40 degrees celsius (this is data for Lucknow). (Source: www.worldclimate.com)
2.3	Average annual yield (discharge) of water in Cubic Meter and the average yield for last past five years	
2.4	Major tributaries	Sai
2.5	Percentage shares of major water uses & Surface and groundwater abstraction in percentages-Convert intoTable (a.) Agriculture,	D N A
	(b.) Industries,	D N A

	(c). Domestic,	D N A
	(d). urban,	D N A
	e). environmental flows.	None
2.6	Major cropping pattern	Major crops cultivated are: Wheat , paddy, maize, barley, pulses (Source: Chemotropic analysis of hydro chmeical data of a alluvialm river basin)
2.7	Cultivable area under irrigation	D N A
2.8	Cultivable area not under irrigation	D N A
2.9	State other Water Uses- eg. Navigation, power, recreation etc.	
3	Ecosystem Features	
3.1	Agro-climatic zones	D N A
3.2	Major sub ecosystems (zoogeographical zones)	D N A
3.3	Major soil types	D N A
3.4	National parks/sanctuaries, lakes, wetlands, etc.	D N A
3.5	Brief information about the delta region of the basin (area, location, major urban centers in the delta, etc.)	Does not form a delta, but meets the Ganga . Forms a doab with River Sai
4	Water Quality	
4.1	Prevailing water quality standards (e.g. Class I, II, III.etc, indicating permitted uses)	The river is said to be highly polluted due to industrial effluemnts, domestic sewage and heavy metals. Recently taces of heavy metals like Chromium were found in its alluvial deposits.Heavy metals like, copper, zinc, magnesium iron and chromium have been found in large quantities in the river water. (Source: Times of India, 15 th May 2005)

4.2	Stretches (along the River) in Kms. with water quality classes indicated (may be marked on the map)	
4.3	Sources of Pollution, with data indicating quantum and/or severity.	1. Industries 2. City centres 3. Many sugar industries based at the banks of the river have negative effects on the ecosystem of Gomti.
4.4	Prevailing abatement techniques e.g: ETP, STP, legislation, etc.	Effluent treatment and sewage treatment plants in bigger cities like Lucknow. Scientists from institutes like NBRI are trying methods like bioremediation using blue green algae. The Gomati Action Plan has been initiated by the Ministry of Environment and Forests Under this component, pollution abatement works are being taken up along the Gomti river in Lucknow, Sultanpur and Jaunpur in Uttar Pradesh. About 269 mld of sewage is targeted to be intercepted, diverted and treated under this action plan. For more details, refer: http://envfor.nic.in/nrcd/gind.html and Tenth Five Year Plan Report on Environment and Forests.
5	Current status of the resource development & potential for development	
5.1	Water availability: a. Per capita water availability (in lpcd)	Though reliable data on per capita water availability was not found, it was analysed that surface water and ground water potential of the river is very good, though pollution and inequity affect water distribution. This has negative impacts especially on poor communities
	b. Per hectare water availability (in Cubic meters for cultivable command area):	Same as above
	c. Availability of environmental flows (Current reserve, if any):	None

	d. Availability of ground water/ Average annual ground water abstraction/recharge.	Data about ground water was not found, though it is stated that groundwater use is low and water logging is a major problem. Central Groundwater Board has embarked on a study to develop conjunctive groundwater and surface water use in Sai and Gomti basins. Details can be found at: http://cgwb.gov.in/GroundWater/conjunctive_use.htm
5.2	Structures: a. Major dams/barrages (with utilization categories):	Data not found
	b. Proposed dams:	Data not found
	c. Live storage of major dams:	Data not found
	d. Live storage through proposed dams:	Data not found
	e. Inter basin transfer systems:	No data found in the public domain
	f. Any Other:	
5.3	Command area of major dams	Data not found
5.4	Agencies functioning in the basins: a. Public agencies/ CSOs which construct/ implement the infrastructures projects: b. Private agencies/ CSOs involved in infrastructure development	1. World Bank is functioning in the Gomti basin, as a part of the Uttar Pradesh Water Sector Restructuring Project. (Approval date Feb 2002, Closing date: October 2007) The development objectives of the Uttar Pradesh Water Sector Restructuring Project are to: a) set up an enabling institutional and policy framework for water sector reform in the State for integrated water resources management; and b) initiate irrigation and drainage sub-sector reforms in the State to increase and sustain water and agricultural productivity. Main components of the project are: Initiating water sector reform., Financing irrigation and drainage sub-sector reforms. The first phase of the project includes: The project is to be taken up in the phased manner. The first phase of the project includes Ghagra

		<p>Gomti Basin Development and Management and strengthening of Jaunpur Branch canal along with rainwater harvesting, rehabilitation and modernisation of irrigation system etc. and feasible studies for second phase. For more details, please refer:http://web.worldbank.org/external/projects/main?menuPK=228424&theSitePK=40941&pagePK=64283627&piPK=73230&Projectid=P050647)</p> <p>2. Uttar Pradesh Jal Nigam dealing with water supply, pollution control and governance. For details, please refer to :http://www.upjn.org/organization1.htm</p> <p>3. Uttar Pradesh Irrigation Department</p>
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	
7	Key Issues:	<p>1. One of the most critical issues in the Gomti basin is the severe water pollution due to multiple sources. Traces of heavy metals have been detected in alluvial deposits as well as the fish in the rivers.</p> <p>2. Recurrent flooding and water logging is also a critical issue with the river basin</p>

8	Enabling instruments- Law/ Policy/ Economic & Financial Measures for introducing IWRM in the basin	<p>1. Under the World Bank funded Water Sector Restructuring Project, one of the main components is :Component 3 piloting reform options for integrated water resources management at the sub-basin level. This may enable the introduction of IWRM in the basin (Source: http://web.worldbank.org/external/projects/main?pagePK=64312881&piPK=64302848&theSitePK=40941&Projectid=P050647).</p> <p>One of the first components of Phase I of the restructuring process is institutional reform based on IWRM.</p> <p>2. One of the objectives of the Uttar Pradesh State Water Policy is to: “Promote formulation of projects as far as and whenever possible on the concept of basin or sub-basin, treating both surface and the ground water as a unitary resource, ensuring multipurpose use of the water resource.”</p>
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SCHEDULE B

ASSESSMENT OF RIVER BASINS ORGANISATIONS (RBOs) IN SOUTH ASIA

nil

SCHEDULE C

ASSESSMENT OF RIVER BASINS ORGANISATIONS (RBOs) IN SOUTH ASIA

nil