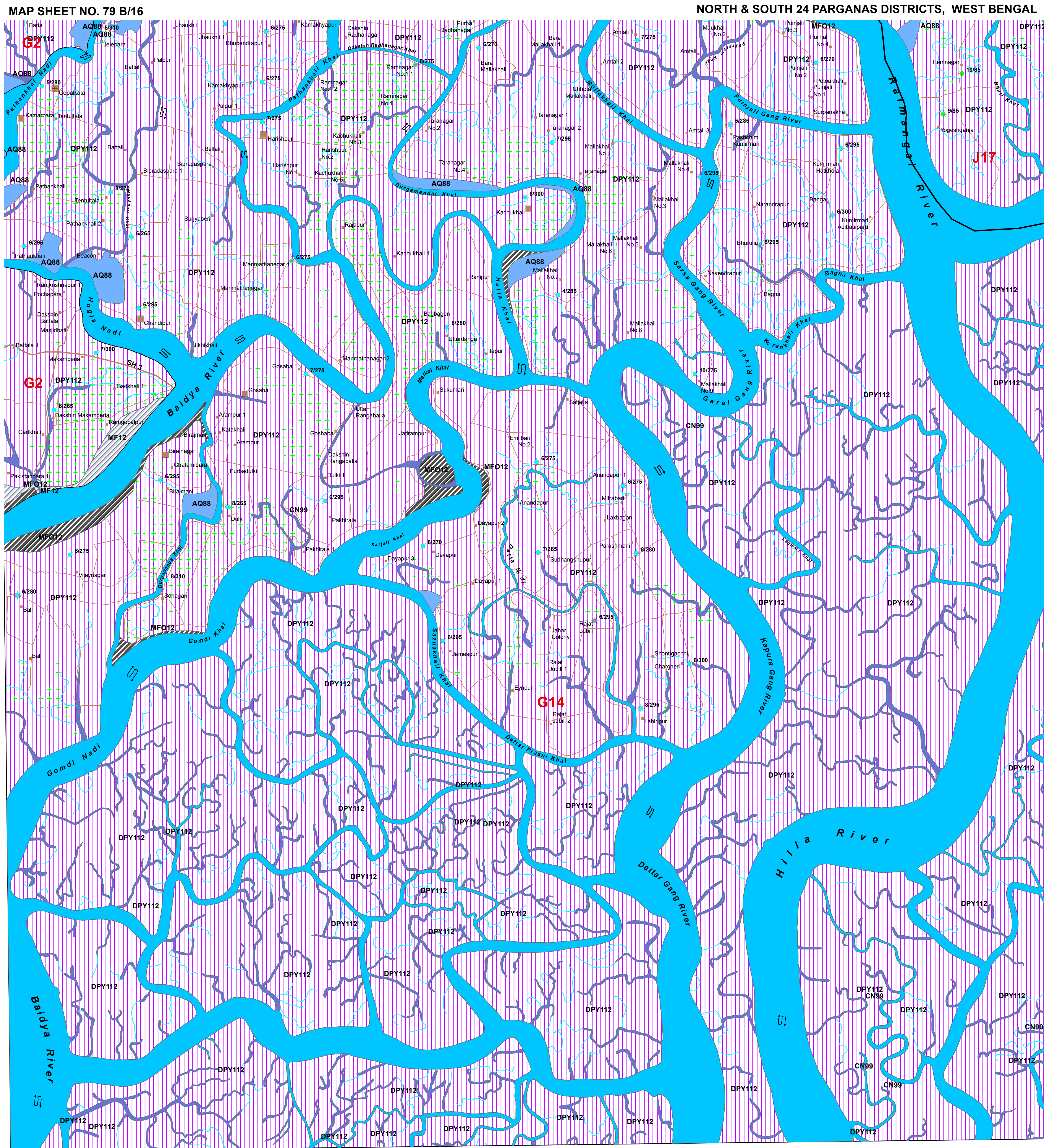
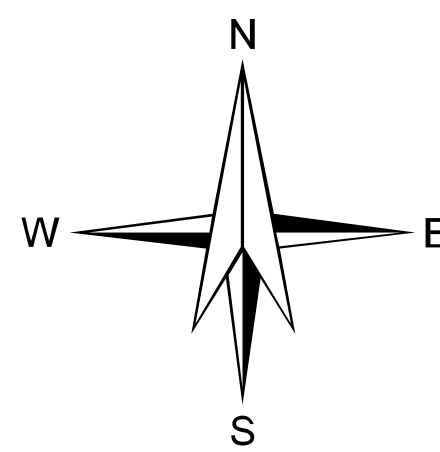
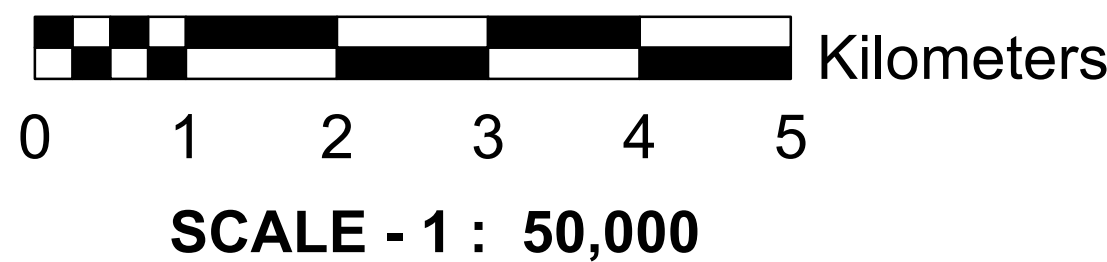


GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



LEGEND

MAP UNIT (HYDROGEOLOGIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)	GEOLOGICAL SEQUENCE / ROCK TYPE		GEOMORPHIC UNIT / LANDFORM	DEPTH TO WATER LEVEL PRE / POST-MONSOON (AVERAGE IN METERS)	RECHARGE CONDITIONS BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)	GROUND WATER PROSPECTS						RECHARGE STRUCTURES SUITABLE & PRIORITY	REMARKS (PROBLEMS / LIMITATIONS)	
	(REPRESENTED IN THE MAP WITH NUMERIC CODE)	(REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	NO. OF WELLS OBSERVED	AQUIFER MATERIAL		TYPE OF WELLS SUITABLE	DEPTH RANGE OF WELLS (SUGGESTED)	YIELD RANGE OF WELLS (EXPECTED)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER POTABLE (P) NON-POTABLE (NP)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)	PT = PRODUCTION TANK CD = CHECK DAM ND = NAILA DUNE PW = RECHARGE WELL DT = DITCHING OF TANK SP = RECHARGE PIT SD = SUBSURFACE DYKE RS = RECHARGE SHAFT ST = STORAGE TANK SCM = SOIL CONSERVATION MEASURES		
DPY112	Active Estuarine Deposits (Present Day)	Alluvium (Sand and Silt) (112)	Deltaic Plain Younger (DPY)	8/6 45	Good	LS	TW	>250 m	>800 LPM	High	NP (Salinity & As at shallow depth)	7	Not Required	Areas affected by Arsenic & Salinity. Fresh water available at depth ranges >250m
F --- F / --- / --- These are fault / fracture zones, which generally act as conduits for movement of ground water in hard rocks. Along these zones, the yields are significantly higher and wells are likely to be sustainable for longer duration. However, the inferred fractures need to be confirmed by detailed ground surveys.														
D --- D / Q --- Q / P --- P D --- D / Q --- Q / P --- P These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.						Aquaculture (AQ88) & Mud Flat Older (MFO12) are not used for groundwater exploitation.								
N.B.-The depth range and yield range of wells may vary within the unit because of certain inhomogeneities. Fractures/lineaments which are clearly observed / inferred from the satellite image are indicated on the map. There could be some obscured fractures which also influence the ground water prospects. Locations of the recharge structures shown in the map are tentative. This map is useful for narrowing down the target zones, and exact location on the ground for wells and recharge structures should be identified based on follow-up ground hydrogeological/geophysical surveys.														

© NRSC (ISRO), DEPT. OF SPACE, GOVT. OF INDIA DATA USED : IRS - P6 LIS3 III FCC dated September 2005-February 2006, GROUND TRUTH & WELL OBSERVATION during March-June, 2012 & Oct 2012-Jan 2013, Published Geological maps & Literatures. Designed & Developed by Hydrogeology Division, NRSC, ISRO

GROUND WATER PROSPECTS INFORMATION				HYDROLOGICAL INFORMATION				STRUCTURAL INFORMATION				BASE MAP INFORMATION				LOCATION INFORMATION			
YIELD RANGE OF WELLS	COLOUR CODE	DEPTH RANGE OF WELLS		DESCRIPTION	SYMBOL	DIPS	BEDDING	SCHISTOSITY/FOLIATION	SYMBOL	DESCRIPTION	STATE INDEX	DISTRICT INDEX	BLOCK INDEX	MAPSHEET INDEX					
		SHALLOW (0-10 METERS)	MODERATE (10-25 METERS)												ANTICLINE / ANTIFORM	SYNCLINE / SYNFORM	BOUNDARY : INTERNATIONAL STATE DISTRICT BLOCK		
> 800 LPM	VIOLET			CANAL / TANK IRRIGATED AREA		GENTLE (< 15°)				NH-2	NATIONAL HIGHWAY								
400 - 800 LPM	INDIGO			GROUND WATER IRRIGATED AREA		MODERATE (15 - 45°)				SH-9	STATE HIGHWAY								
200 - 400 LPM	BLUE			RIVER / STREAM (with sand)		STEEP (45 - 80°)					METALLED ROAD								
100 - 200 LPM	GREEN			WATER BODY / SPRING		SUB-VERTICAL TO VERTICAL (> 80°)					OTHER ROAD								
50 - 100 LPM	YELLOW			CANAL		ANTICLINE / ANTIFORM					RAILWAY								
30 - 50 LPM	ORANGE			RAIN GUAGE STATION (With average annual rainfall in mm)	800	SYNCLINE / SYNFORM					CITY / VILLAGE								
20 - 30 LPM	BROWN			RECHARGE STRUCTURES SUGGESTED		TREND LINE					HABITATIONS : NON - COVERED (NC) PARTIALLY COVERED (PC)								
10 - 20 LPM	PINK			PERCOLATION TANK NALA BUND DESILTING OF TANK SUBSURFACE DYKE SOIL CONSERVATION MEASURES	CHECK DAM RECHARGE WELL RECHARGE PIT RECHARGE SHAFT STORAGE TANK	ESCAPAMENT													
Prospects related to water potential only (RPH, PMPs etc.)	RED			YIELD RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 30 LPM 10 - 20 LPM < 10 LPM	SOIL TUBE WELL DUG WELL DUG WELL DUG WELL DUG WELL DUG WELL DUG WELL DUG WELL	FAULT	THURST FRACTURE / LINEAMENT FRACTURE / LINEAMENT (Inferred)	BOUNDARY : INTERNATIONAL STATE DISTRICT BLOCK	OTHER INFORMATION Rainfall : 1876 mm (Source IMD)										
Recharge zone Boundary G.W. Movement				WELL SPACED DUG WELL > 800 LPM 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 30 LPM 10 - 20 LPM < 10 LPM	YIELD RANGE > 400 m ³ /day 200 - 400 m ³ /day 100 - 200 m ³ /day 50 - 100 m ³ /day 25 - 50 m ³ /day 15 - 25 m ³ /day 10 - 15 m ³ /day 5 - 10 m ³ /day ≤ 5 m ³ /day	DIKE QUARTZ REEF PEGMATITE VEIN	Lithologic contacts are inferred at places & Geomorphic boundaries are gradational												
PREPARED BY GEOINFORMATICS & REMOTE SENSING CELL W.B. STATE COUNCIL OF SCIENCE AND TECHNOLOGY DEPARTMENT OF SCIENCE AND TECHNOLOGY GOVERNMENT OF WEST BENGAL 4TH FLOOR, BIKASH BHAVAN SALT LAKE, KOLKATA 700 091				TECHNICAL GUIDANCE & QUALITY CHECK NATIONAL REMOTE SENSING CENTRE INDIAN SPACE RESEARCH ORGANISATION (ISRO) DEPT. OF SPACE, GOVT. OF INDIA BALANAGAR, HYDERABAD - 500 625				PARTICIPATING ORGANIZATIONS SURVEY OF INDIA GEOLOGICAL SURVEY OF INDIA PHED, GOVT. OF WEST BENGAL STATE WATER INVESTIGATION DIRECTORATE, GOWB P.S.MAPS (LAND RECORD), GOVT OF WEST BENGAL				METHODOLOGY & PROJECT EXECUTION NATIONAL REMOTE SENSING CENTRE INDIAN SPACE RESEARCH ORGANISATION (ISRO) DEPT. OF SPACE, GOVT. OF INDIA BALANAGAR, HYDERABAD - 500 625				SPONSORED BY RAJIV GANDHI NATIONAL DRINKING WATER MISSION (PHASE IV) DEPARTMENT OF DRINKING WATER SUPPLY (DDWS) MINISTRY OF DRINKING WATER & SANITATION GOVERNMENT OF INDIA NEW DELHI			