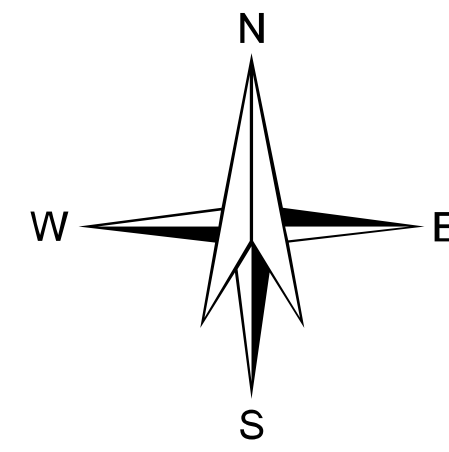
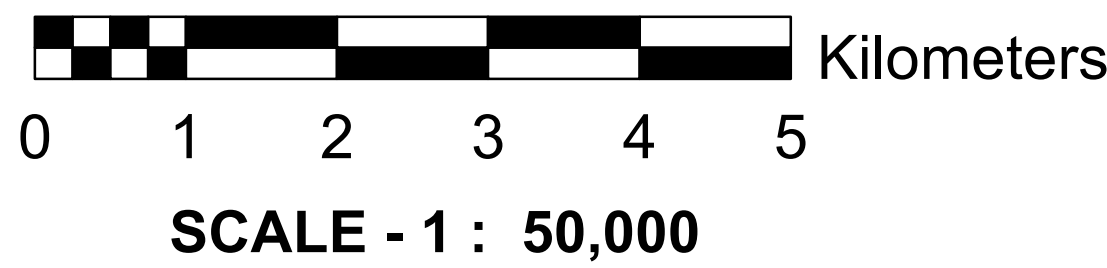


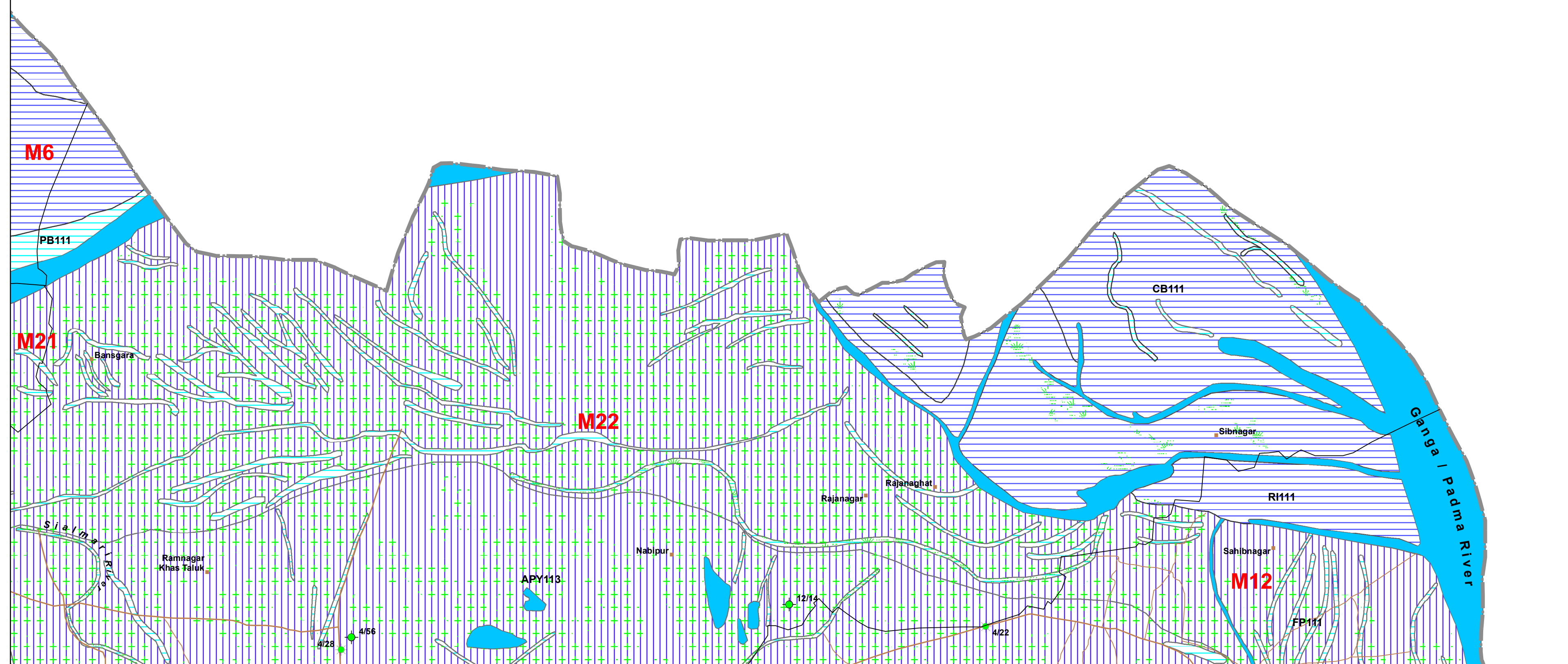
(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



MAP SHEET NO. 78D/11

MURSHIDABAD DISTRICT, WEST BENGAL

B A N G L A D E S H



© NRSC (ISRO), DEPT. OF SPACE, GOVT. OF INDIA DATA USED : IRS - P6 LISS 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*

LEGEND

MAP UNIT (HYDROGEO MORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND MATCHING INDICATE DEPTH RANGE)	GEOLOGICAL SEQUENCE / ROCK TYPE (REPRESENTED IN THE MAP WITH NUMERIC CODE)	GEOMORPHIC UNIT / LANDFORM (REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	DEPTH TO WATER LEVEL PRE / POST MONSOON (AVERAGE IN METRES) NO. OF WELLS OBSERVED	RECHARGE CONDITIONS BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)	GROUND WATER PROSPECTS							RECHARGE STRUCTURES SUITABLE & PRIORITY PT = PRECIPITATION TANK CD = CHECK DAM ND = NALA DRAIN SD = SLOPE DRAIN WELL DF = DESILTING OF TANK SP = STORAGE PIT SG = SURFACE SPRING AS = AQUIFER SAFETY ST = STORAGE TANK SCM = SOIL CONSERVATION MEASURES	REMARKS (PROBLEMS / LIMITATIONS)	
					AQUIFER MATERIAL LS = LOOSE SEDIMENTS PS = PERMEABLE ROCK FS = FRACTURED ROCK FR = FRACTURED ROCK WR = WEATHERED ROCK / NW = WEATHERED MATERIAL R = IMPERVIOUS ROCK	TYPE OF WELLS SUITABLE RW = RAB WELL RW = RAB WELL TW = TUBE WELL BW = BOREHOLE WELL DW = DRILL CORE WELL SW = SHALLOW WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (IN LPM or m ³ / Day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY) VERY HIGH MODERATE LOW	QUALITY OF WATER POTABLE (P) NON- POTABLE (NP) (INDICATE REASONS IF NON- POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)			
		Channel Bar (CB)	No Well Observed	Excellent	LS	RW TW	5-10 m	400-500 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Point Bar (PB)	No Well Observed	Very Good	LS	RW TW	5-10 m	300-500 LPM	Very High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		River Island (RI)	No Well Observed	Excellent	LS	RW TW	5-10 m	400-500 LPM	Very High	NP	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Meander Scar (MS)	No Well Observed	Good	LS	RW TW	10-15 m	200-250 LPM	High	P	Nil	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.	
		Flood Plain (FP)	No Well Observed	Very Good	LS	TW	80-100 m	400-500 LPM	Very High	NP (As) (At shallow depth)	67	Not Required	Areas with high Arsenic and Iron concentration.Potable water available at depth range above 100 m.	
		Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	7 / 4 4	Good	LS	TW	100-120 m	400-500 LPM	High	NP (As & Fe) (At shallow depth)	59	Not Required	Areas with high Arsenic and Iron concentration.Potable water available at depth range above 100 m.
		Alluvium (Sand,Silt & Clay) (13)	Abandoned Channel (AC)	No Well Observed	Very Good	LS	RW TW	10-15 m	250-300 LPM	Very High	P	Nil	Not Required	Areas of very high groundwater potential at shallow depth.Most suitable for extraction of groundwater.
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.														
N.B.-The depth range and yield range of wells may vary within the unit because of certain inhomogenities. 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.														

[illegible]