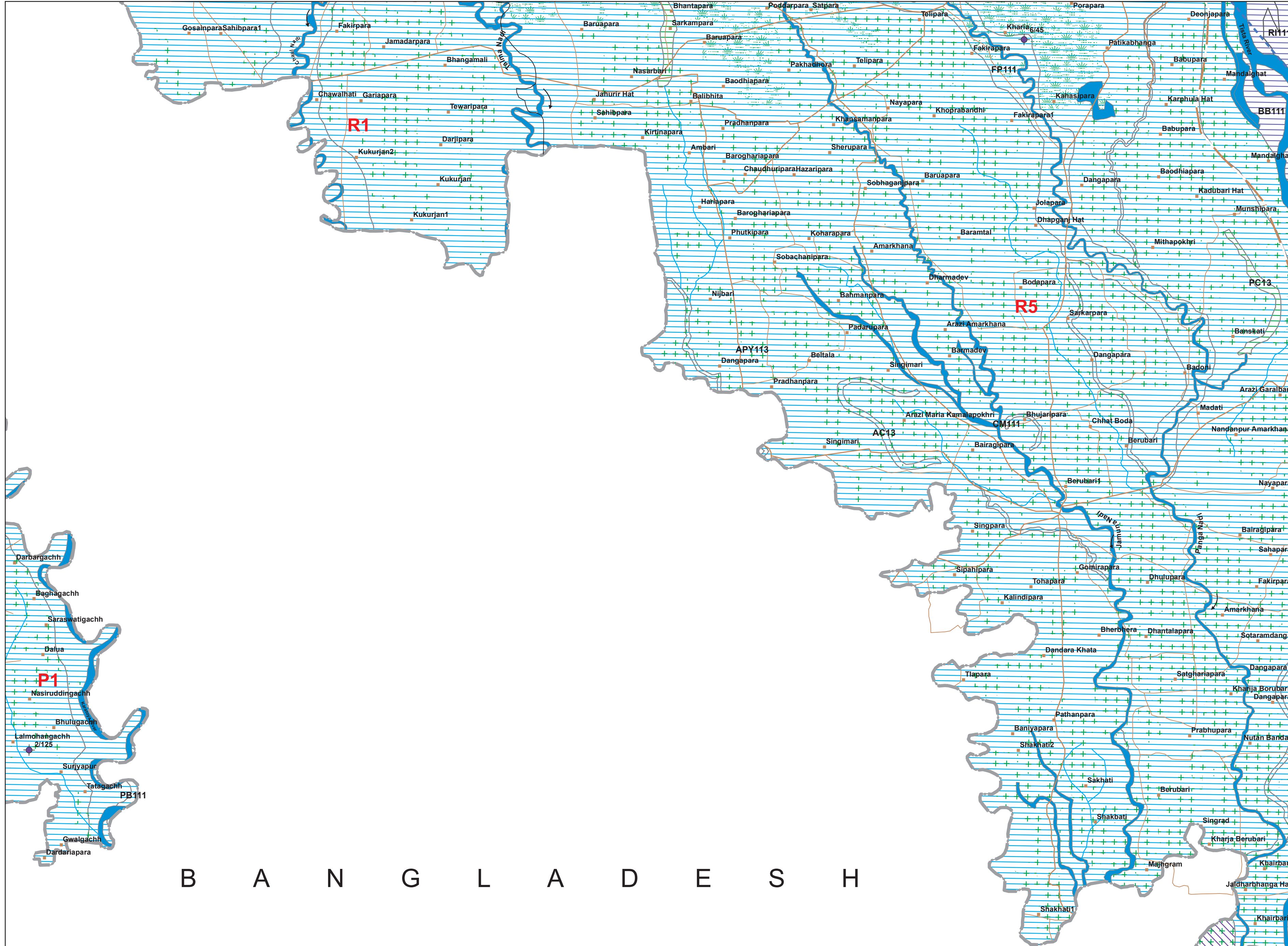


( PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS )



JALPAIGURI &amp; UTTAR DINAJPUR DISTRICT, WEST BENGAL



B A N G L A D E S H

## LEGEND

MAP UNIT (HYDROGEO MORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE  (COLOUR INDICATES YIELD RANGE AND HATCHING 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 METERS)  NO. OF WELLS OBSERVED	RECHARGE CONDITIONS  BASED ON AVAILABILITY OF WATERS  (RAINFALL & OTHER SOURCES)	GROUND WATER PROSPECTS							RECHARGE STRUCTURES SUITABLE & PRIORITY	RE MARK S (PROBLEMS / LIMITATIONS)	
					AQUIFER MATERIAL  LS = LOOSE SEDIMENTS PB = PERMEABLE ROCK PI = FRACTURED ROCK WB = WEATHERED ROCK WM = WEATHERED MATERIAL IM = IMPERVIOUS ROCK	TYPE OF WELLS SUITABLE  DW = DUG WELL RW = RIVER WELL TW = TUBE WELL DWTW = DUG COUNTRY WELL	DEPTH RANGE OF WELLS (SUGGESTED)  MIN. MAX. (IN METERS)	YIELD RANGE OF WELLS (EXPECTED)  (IN LPM (or m <sup>3</sup> /day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)  VERY HIGH MODERATE LOW	QUALITY OF WATER (POTABLE (P), NON- POTABLE (NP))  (INDICATE READING IF NON- POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)			
	Shaugon Formation/ Present Day Deposits ( Present Day )	Braid Bar (BB)	No Well Observed	Excellent	LS	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	300-400 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	Very Good	LS	TW	5-10 m	400-500 LPM	High	P	Nil	Not Required	Highly productive aquifer at shallow depth.Good recharge	
		Alluvium (Sand Dominant) (111)  Cut- off Meander (CM)	No Well Observed	Good	LS	TW	10-20 m	300-400 LPM	High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge from the river base flow.	
		Flood Plain (FP)	7 / 5 1	Very Good	LS	TW	<30 m	250-350 LPM	Very High	P	95	Not Required	Receives good recharge and forms shallow aquifer.Overall quality of the water is potable.	
		Piedmont Alluvium Deep (PAD)	No Well Observed	Good	LS	TW DTW	60-80 m	400-500 LPM	Moderate	P	75	Not Required	Good ground water prospect at greater depth as the principal aquifer occurs below PAM.	
	Maldar/Jalpaiguri Formation ( Early - Late Tertiary )	Alluvium (Sand and Silt) (113)	4 / 1 1	Good	LS	TW	25-30 m	200-250 LPM	High	P	70	Not Required	Highly productive aquifer in shallow depth with good recharge.	
		Abandoned Channel (AC)	No Well Observed	Excellent to Very Good	LS	TW	10-15 m	250-300 LPM	Very High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge from base flow.	
		Alluvium (Sand,Silt & Clay) (13)  Palaeo-channel (PC)	No Well Observed	Very Good	LS	TW	15-20m	150-200 LPM	Very High	P	Nil	Not Required	Highly productive shallow aquiferswith good recharge.	
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 inhomogeneities. Fractures/Lineaments which are clearly observed / inferred from the satellite image are indicated on the map. There could be some observed 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]