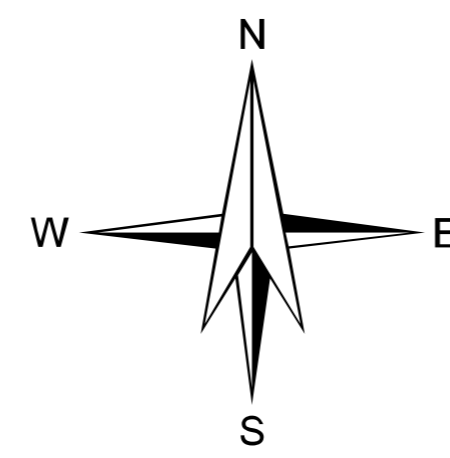
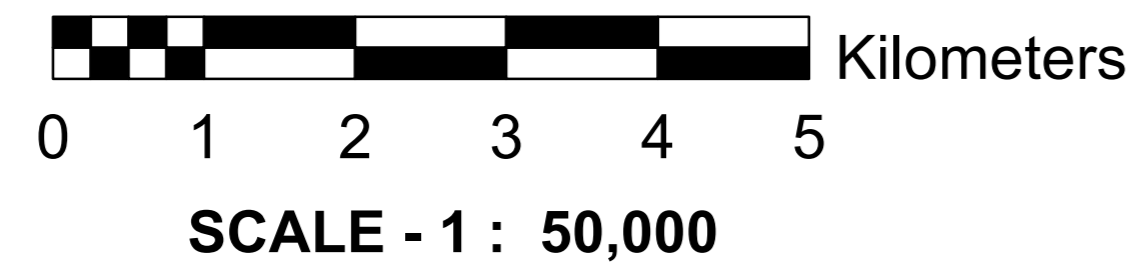


GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



MAP SHEET NO. 78D/16

NADIA DISTRICT, WEST BENGAL

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 (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 WATER (RAINFALL & OTHER SOURCES))	GROUND WATER PROSPECTS						RECHARGE STRUCTURES SUITABLE & PRIORITY	RE MARKS (PROBLEMS / LIMITATIONS)	
					AQUIFER MATERIAL	TYPE OF WELLS SUITABLE	DEPTH RANGE OF WELLS (SUMMER)	YIELD RANGE OF WELLS (EXPECTED) (LPM OR m ³ /day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER POSSIBLE (P) NON-POTABLE (NP) (ANALYSIS NOT DONE)			GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)
FP111	Alluvium (Sand Dominant) (111)	Flood Plain (FP)	No Well Observed	Very Good	LS	TW	>80 m	>800 LPM	Very High	NP [At shallow depth]	4	RW Low	Areas with high Arsenic concentration. Potable water available at depth range above 80 m.
AP113	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	No Well Observed	Good	LS	TW	80-100 m	500-600 LPM	High	NP [At shallow depth]	36	RW Low	Areas with high Arsenic and Iron concentration. Potable water available at depth range above 80m.

F --- 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 / --- D --- O --- O / --- O --- 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/Linements 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.

B A N G L A D E S H

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