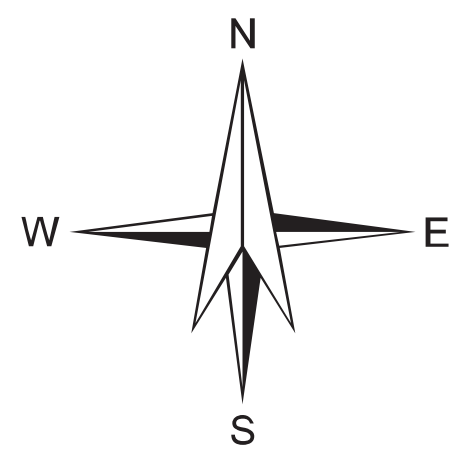
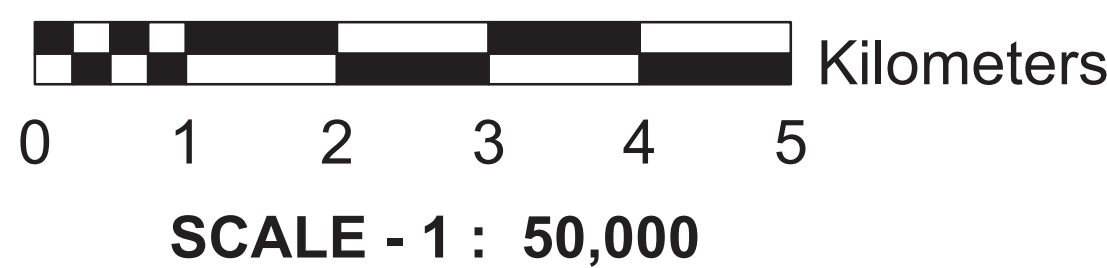


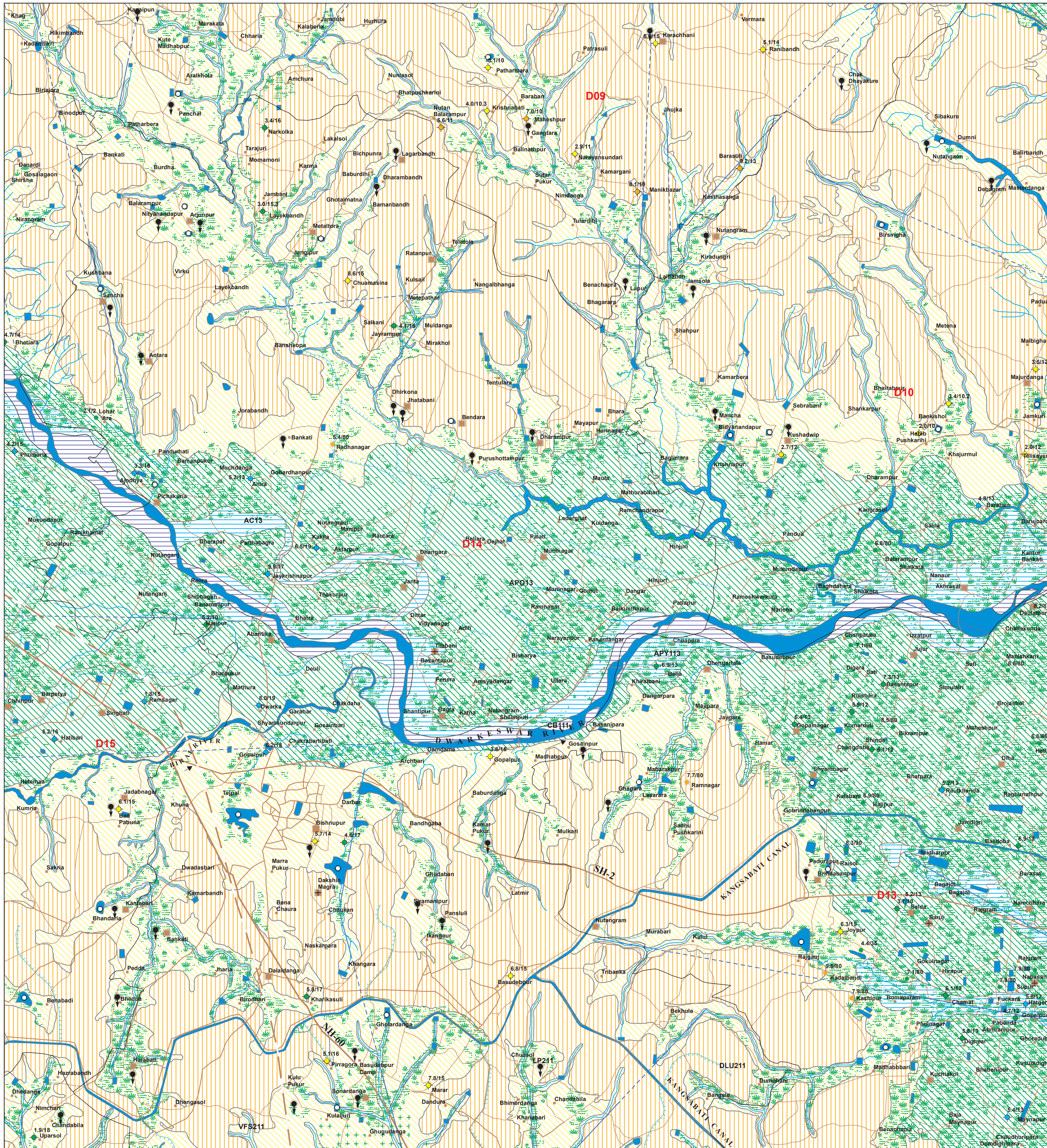
GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



MAP SHEET NO. 73M/8

BANKURA DISTRICT, WEST BENGAL



L E G E N D

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 (PREPOST - 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	REMARKS (PROBLEMS / LIMITATIONS)
					AQUIFER MATERIAL	TYPE OF WELLS SUITABLE	DEPTH RANGE OF WELLS (SUCCESSED)	YIELD RANGE OF WELLS (EXPECTED) (IN LPM or m ³ /day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY)	QUALITY OF WATER (POTABLE or NON-POTABLE (NP)) (INDICATE REASON if NON-POTABLE)	GROUND WATER IRRIGATED AREA (APPROX. RANGE IN PERCENTAGE)		
CB111	Alluvium (Sand Dominant) (111)	Channel Bar (CB)	5 - 6 2	Excellent	LS	TW	5-10 m	400-500 LPM	Very High	P	42%	Not Required	Groundwater prospects very high with high recharge potential. Recharge structures not required.
APY113	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	5.89 - 6.95 DW - 3	Very Good	LS	DW TW	5 - 7 m 10 - 20 m	100 - 125 m ³ /day 200 - 250 LPM	Very High	P	30%	Not Required	Aquifer is formed of sandy part of alluvium Recharge structures are not required as good recharge condition prevails
AC13	Abandoned Channel (AC)	Abandoned Channel (AC)	No wells observed	Excellent	LS	DW TW	5 - 7 m 10 - 20 m	150 - 200 m ³ /day 200 - 300 LPM	Very High	P	40%	Not Required	Aquifer is formed of sandy part of alluvium Recharge structures are not required as good recharge condition prevails
AP013	Alluvium (Sand, Silt and Clay) (13)	Alluvial Plain Older (APO)	1.8 - 7.9 DW - 13 HP - 3	Good	LS	DW TW	15 - 20 m 30 - 50 m	50 - 75 m ³ /day 150 - 200 LPM	High	P	25%	Not Required	Aquifer is formed of sandy part of alluvium Recharge structures are not required as good recharge condition prevails
VFS211	Valley Fill Shallow (VFS)	Valley Fill Shallow (VFS)	No wells observed	Moderate	LS Underlain by WM + FR	TW / BW	40 - 50 m	50 - 100 LPM	Moderate	P	50%	DT Moderate	Recharge structure will increase the sustainability of ground water prospects
LP211	Laterite Fertile/old hard crust, laterite nodules and lithomarge clay (211)	Laterite Plain (LP) (Lithomarge Clay)	1.9 - 9.27 DW - 15 HP - 2	Limited	WM + FR	DW TW / BW	15 - 20 m 50 - 60 m	15 - 25 m ³ /day 50 - 100 LPM	Moderate	P	15%	RW / DT High	Recharge wells have high priority as the lithomarge clay layer needs to be penetrated to recharge underlying aquifer formed of weathered material and fractured rock.
DLU211	Dissected Laterite Upland (DLU) (Hard crust and laterite nodules) (211)	Dissected Laterite Upland (DLU)	2 - 9.5 DW - 3 HP - 15	Poor to limited	WM + IR (Impervious Material)	TW / BW	80 - 100 m	30 - 50 LPM	Low	P	Nil	Not Required	Essentially run-off zone where hard crust is present. Areas of laterite nodules are recharge zones with deep water table conditions. Primarily forest areas with sparse settlements. Not suitable for large scale development of ground water.

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 / 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 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.

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	SYMBOL	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	STATE INDEX	DISTRICT INDEX	BLOCK INDEX	MAPSHEET INDEX
		SHALLOW (0-10 METERS)	MODERATE (10-15 METERS)																
> 800 LPM	VIOLET			CANAL / TANK IRRIGATED AREA		GENTLE (< 15°)				NATIONAL HIGHWAY									
400 - 800 LPM	INDIGO			GROUND WATER IRRIGATED AREA		MODERATE (15 - 45°)				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)		SYNCLINE / SYNFORM				CITY / VILLAGE									
20 - 25 LPM	BROWN			RECHARGE STRUCTURES SUGGESTED		ESCAPAMENT				HABITATIONS : NON - COVERED (NC) PARTIALLY COVERED (PC)									
10 - 20 LPM	PINK			PERCOLATION TANK NALA BUND DESILTING OF TANK SUBSURFACE DYKE SOIL CONSERVATION MEASURES		LITHOLOGY / GEOMORPHIC UNIT BOUNDARY				BOUNDARY : STATE DISTRICT BLOCK									
Prospects related to water potential only (RWS, PWS, etc.)	RED			WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	WELL RANGE 400 - 800 LPM 200 - 400 LPM 100 - 200 LPM 50 - 100 LPM 30 - 50 LPM 20 - 25 LPM 10 - 20 LPM < 10 LPM	
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 III B) DEPARTMENT OF DRINKING WATER SUPPLY (DDWS) MINISTRY OF RURAL DEVELOPMENT GOVERNMENT OF INDIA NEW DELHI			