



केंद्रीय भूमि जल बोर्ड

जल संसाधन, नदी विकास और गंगा संरक्षण

विभाग, जल शक्ति मंत्रालय

भारत सरकार

Central Ground Water Board

Department of Water Resources, River
Development and Ganga Rejuvenation,
Ministry of Jal Shakti
Government of India

AQUIFER MAPPING AND MANAGEMENT OF GROUND WATER RESOURCES

**DHARMAPURI FIRKA, DHARMAPURI DISTRICT,
TAMIL NADU**

दक्षिण पूर्वी तटीय क्षेत्र, चेन्नई

South Eastern Coastal Region, Chennai

REPORT ON
AQUIFER DISPOSITION & MANAGEMENT PLAN
DHARMAPURI FIRKA,
DHARMAPURI DISTRICT, TAMIL NADU STATE

SALIENT FEATURES

1	Name of the Firka/ Area (Sq.Km.)	:	DHARMAPURI	195.11 Sq.km
	Revenue Division		Dharmapuri	
	Location	Lat	:	
		Long	:	
2	Number of Revenue Villages	:	16	
3	District	State	:	Dharmapuri TAMIL NADU
4	Population (2011 Census)	:	106335	
5	Normal Rainfall (mm)	:		1011.76
			Monsoon	795.93
			Non-monsoon	215.83
6	Agriculture (2012-13) (Ha)		1. Gross Irrigated Area	2801.58
		:	2. Paddy	946.64
			3. Sugar cane	603.53
			4. Banana	21.25
			5. Other Crops	1230.16
			6. Groundwater	1571.42
			7. Surface Water	481.02
7	Existing and future water demands (ham)	:	Domestic & Industrial	
			Existing	144.66
			Future (year 2025)	164.42
8	Water Level Behaviour (mbgl)	:	Pre-monsoon	3.20 – 12.30 m bgl
			Post-monsoon	3.60 – 10.60 m bgl

AQUIFER DISPOSITION

9	Number of Aquifers	:	2
10	3D Aquifer disposition and basic characteristics of each Aquifer	:	Geology- Charnockite and Hornblende Gneiss

Aquifer I (Weathered Zone)

Thickness varies from	3.8 – 11.42 m
Transmissivity (T):	10.42 – 87.35 m ² /day

		Specific Yield (Sy):	0.11 to 1.8%	
		Aquifer II (Fractured Zone)		
		Depth of fracturing varies from	11.5 – 85.2 m	
		Transmissivity (T):	7 - 45.8 m ² /day	
		Specific Storage (S):	0.00001-0.02	
		Cumulative Yield (Aquifer I & II):	0.1 – 1 lps	
11	Groundwater Issues	:	<ul style="list-style-type: none"> • Geogenic contamination by Fluoride. • Sustainability of wells (1-2 hrs). 	
12	Groundwater Resource Availability and Extraction (2012-13)	:	Net Groundwater availability:	16.2632 MCM
			Gross Groundwater draft for irrigation:	13.2674 MCM
			Gross Groundwater draft for domestic & industrial supply:	1.4466 MCM
			Gross Groundwater draft:	14.7140 MCM
			Stage of Groundwater development:	90 %
			Category:	CRITICAL
13	Groundwater Extraction	:	Groundwater extraction structures (Numbers)	3289
			Bore wells:	156
			Dug wells:	3133
14	Chemical Quality of Groundwater, Contamination and its suitability	:	Min	Max
			EC (µS/cm)	560 1902
			No ₃ (mg/l)	21 134
			F (mg/l)	0.2 1.56
15	Groundwater Recharge Scenario			
	Recharge from Rainfall (Monsoon)		6.1827 MCM	
	Recharge from Other Sources (Monsoon)		7.1509 MCM	
	Recharge from Rainfall (Non-monsoon)		2.0957 MCM	
	Recharge from Other Sources (Non-monsoon)		2.6409 MCM	

Total Annual Groundwater Recharge	18.0703 MCM
Natural Discharge	1.8070 MCM

Fig -

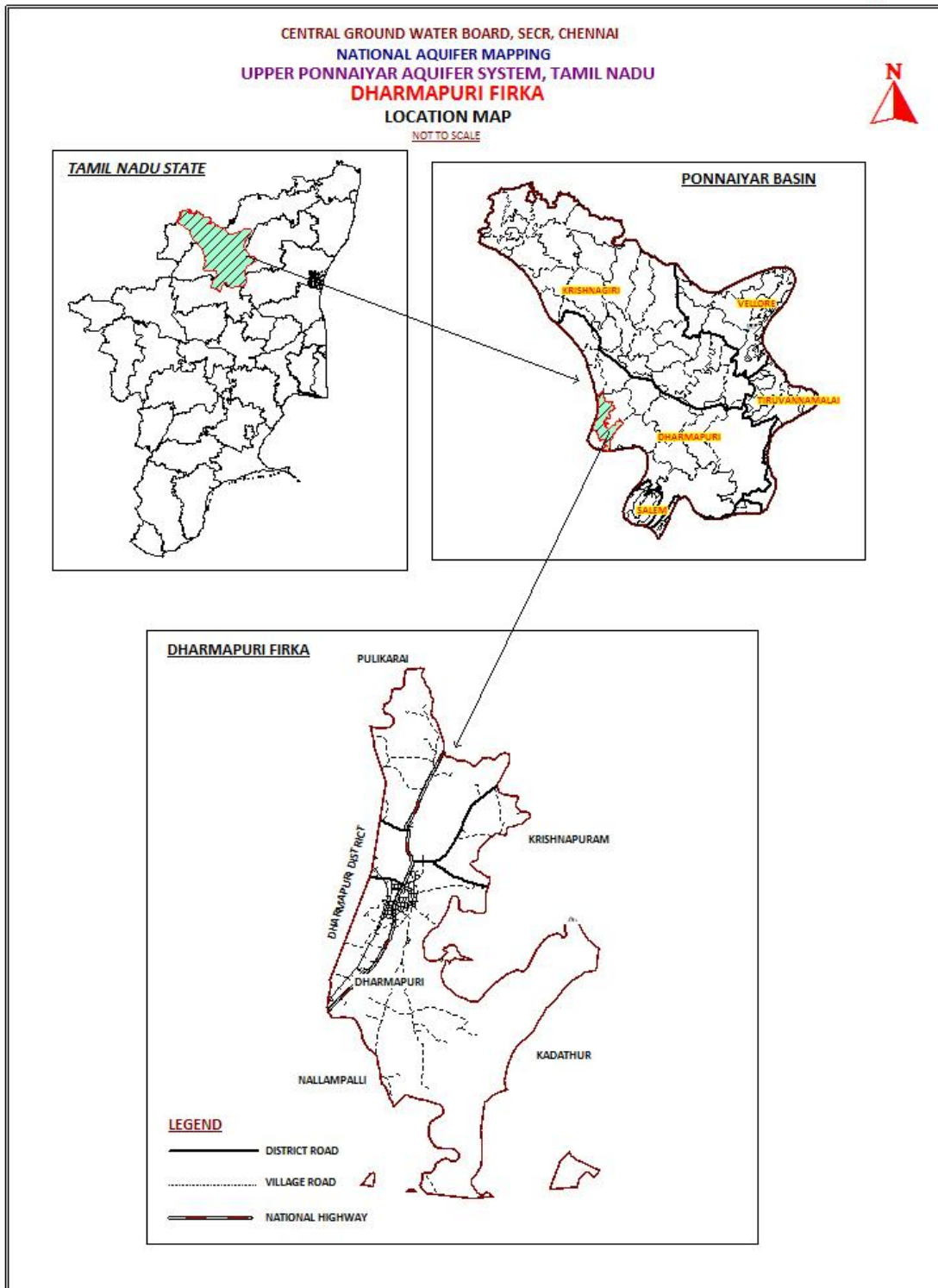


Fig-2(a-d): 3 D map and Sections – Dharmapuri Firka, Dharmapuri District.

