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Central Ground Water Board

Department of Water Resources, River
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Government of India

AQUIFER MAPPING AND MANAGEMENT OF GROUND WATER RESOURCES LOWER PONNAIYAR AQUIFER SYSTEM, Tamil Nadu

दक्षिण पूर्वी तटीय क्षेत्र, चेन्नई

South Eastern Coastal Region, Chennai

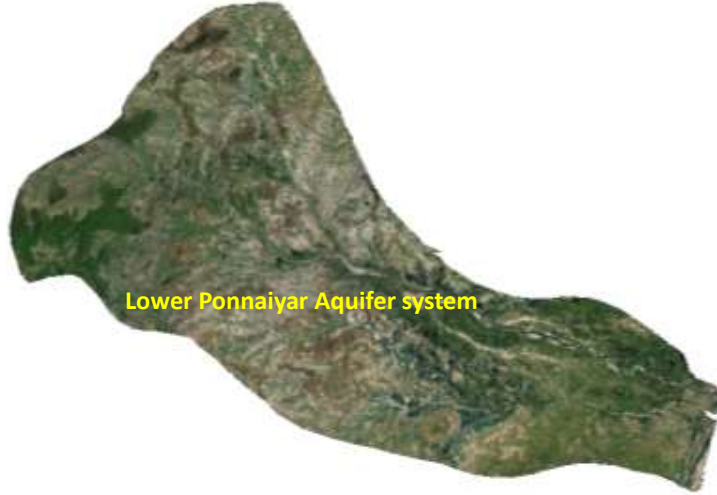
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(वार्षिक कार्य योजना 2016-2017)

**REPORT ON
AQUIFER MAPPING AND AQUIFER MANAGEMENT PLAN FOR THE
LOWER PONNAIYAR AQUIFER SYSTEM, TAMIL NADU
(AAP 2016-17)**



जल शक्ती मंत्रालय, जल संसाधन, नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय भूमिजल बोर्ड, दक्षिण पूर्वी तटीय क्षेत्र, चेन्नई

Government of India
Ministry of Jal Shakthi,
Department Water Resources, River Development & Ganga Rejuvenation
Central Ground Water Board

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Foreword

Groundwater is the major source of freshwater that caters the demand of ever growing domestic, agricultural and industrial sectors of the country. This renewable resource has been indiscriminately exploited in some parts of the country by several users as it is easily available and reliable. Intensive and unregulated groundwater pumping in many areas has caused rapid and widespread groundwater decline. In India out of 6607 groundwater assessment units (Blocks/mandals/taluks/firkas etc.), 1071 units are over-exploited and 914 units are critical. These units with groundwater development more than the 100% are categorized over exploited and more than 90% development as Critical.

Central Ground Water Board (CGWB) has taken up largest Aquifer mapping endeavor in the world, targeting total mappable area of country 23.25 lakh sq.km with a vertical extent of 300m in soft rocks areas and 200m in hard rock areas. The extent of aquifers, their potential, resource availability, chemical quality and its sustainable management options will be addressed by National Aquifer Mapping (NAQUIM). The NAQUIM programme will also facilitate participatory management of groundwater to provide long-term sustenance for the benefit of farmers. Currently, focus is on groundwater stressed areas of nine states comprising 5.25 lakh sq.km viz. Tamil Nadu, Haryana, Punjab, Rajasthan, Gujarat, Andhra Pradesh, Telangana, Karnataka and Bundelkhand region.

South Eastern Coastal Region (SECR), CGWB, Chennai under NAQUIM has envisaged the mapping of an area of 70,102 sq.km during 2012-17 (XII Five Year Plan) in Tamil Nadu and UT of Puducherry. This report deals with the Aquifer mapping studies carried out in water stressed Lower Ponnaiyar aquifer system covering an area of 4873 sq.km with 4813 sq.km as mappable area. The basin comprises of water stressed Villupuram, Tiruvannamalai and Cuddalore districts with 38 firkas. Seventeen firkas are Over exploited and Critical firkas which are mainly dependent on groundwater (85%) for its drinking water needs. The major issues in the basin include declining groundwater levels, threat of seawater intrusion, massive formation with poor yielding aquifer. Aquifer units have been deciphered firka-wise and regions of high yielding zone and low yielding zone have been demarcated for both soft and hard rock formations in the Lower Ponnaiyar aquifer system. In hard rock regions two aquifer units namely Aquifer unit-I (weathered rock) and Aquifer Unit –II (fractured/Jointed zone) and in sedimentary rock areas 4 units of aquifer viz. Aquifer unit-I, Aquifer unit-II, Aquifer unit-III and Aquifer unit-IV. In order to arrest the declining groundwater levels and increase the sustainability of wells, firka wise groundwater management plans in supply and demand side have been formulated.

I hope this report will be useful for the district administrators, water managers, stakeholders including farmers in knowing the aquifer and managing the resources effectively in the Lower Ponnaiyar Aquifer System.

(C. PAUL PRABHAKAR)
REGIONAL DIRECTOR

EXECUTIVE SUMMARY

Detailed hydrogeological studies were conducted in the Lower Ponnaiyar Aquifer system areas wherein huge existing data pertinent to geology, geophysics, hydrology, hydrochemistry were collected, synthesized and analysed to bring out this report. This report mainly focuses on the depiction of lateral and vertical extent of the aquifers with their geometry, aquifer properties of the study area which are considered to be measuring scales for groundwater availability and potentiality. Keeping these parameters in view a sustainable management plan has been suggested through which the groundwater needs can be fulfilled in a rational way.

The study area experiences tropical climate with 1197 mm annual normal rainfall covering 4873 km² area in Villupuram, Tiruvannamalai and Cuddalore districts of Tamil Nadu. About 66% of the geographical area is under agricultural activity of which 42% is groundwater irrigation. The main crops irrigated are paddy, sugarcane, groundnut, maize, cotton, ragi and other minor crops are turmeric, vegetables and flowers.

Two main aquifer units exist in the hard rock region of the Lower Ponnaiyar aquifer system constituted by 1. Weathered zone at the top followed by a 2. Discrete anisotropic fractured/fissured zone at the bottom in the western and central parts of the study area. In the Sedimentary rock region it forms the multilayered aquifer system with alluvium and unconfined layer of Cuddalore formation as phreatic aquifer on the top and it is underlined by confined aquifers of Cuddalore formation and Eocene sandstone formation. The predominant water levels are in the range of 5-20 m bgl during pre-monsoon season (May 2016) and 2-10 m bgl during post-monsoon season of 2017. The net annual groundwater availability is 1184.43 MCM and the gross groundwater draft is 962.27 MCM and the stage of groundwater development is of 86% (2013).

The major issues in the region are decline in groundwater level and low sustainability, threat of sea water intrusion, massive formation with no fracture which leads to water scarcity problem etc.

In hard rock regions aquifer systems can be conceptualized as weathered zone down to the depth of 40m with average thickness of 11m and fractured zone between 11m and 195 m bgl. The weathered zone is disintegrated from the bed rock (upper part—saprolite zone) and partially/semi-weathered in the lower part (soft rock zone) with transmissivity varying between 1.2 & 59 m²/day and specific yield of 0.5 - 1.5%. The fractured zone is fractured gneiss or Charnockite which occur in limited extent, associated sometimes with quartz vein. The average transmissivity of this zone varies between 2.6 & 141.2 m²/day and storativity varies from 0.002 to 0.01. In alluvial regions the first aquifer unit comprising of sand, gravel (alluvium) and unconfined layer of Cuddalore sandstone has thickness ranging from 11 to 55 m with yields ranging from 11 to 25 m³/hr and transmissivity values ranging from 245 to 770 m²/day. Confined layer of Cuddalore formation comprising of sandstone, shally sandstone, pebble beds and sandy clay formation underlie the alluvial formation and yields ranging from 18 to 72 m³/hr with transmissivity values ranging from 138 - 3162 m²/day. The Eocene sandstone aquifer occurs at the depth of 110 to 135 m bgl and composed of sandstone with yield range of 41 to 174 m³/hr and the transmissivity value is in the range of 378 to 3478 m²/day.

The fast growing urban agglomerations of the areas shares the portion of groundwater which is being used for irrigation purpose resulting in either shortage for irrigation needs or creates

excessive draft to meet both demands in groundwater potential areas. The study formulates management strategies for supply side as well as demand side. The supply side measures include construction of artificial recharge structures of 192 Check dams, 650 nala bands, 818 recharge shafts in addition to the 237 ponds earmarked for rejuvenation with recharge shafts in all the 24 OE 4 Critical firkas of the basin. The estimated cost for construction of these structures is to be Rs. 81.3 crores. The estimated recharge to groundwater system through these structures will be in the order of 25 MCM with an additional area of Paddy: 1562 ha. (or) Sugarcane: 1250 ha. (or) Banana: 2500 ha. (or) Irrigated Dry crops: 4717 ha. Demand side management is also recommended by change in irrigation pattern from flooding method to Ridge & furrow for paddy and flooding to drip for sugarcane and banana crops. This intervention would save 323 MCM of water annually. By carrying out both supply and demand side interventions the stage of groundwater development would be lowered from 86 to 57%.

The existing regulatory measures may be modified suitably for optimal utilization of groundwater as well as for sustainable development of rural agricultural based economy. To achieve this goal opinion pool has to be obtained from more user groups and valid suggestions of may be incorporated in the regulatory acts.

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AQUIFER MAPPING AND AQUIFER MANAGEMENT PLAN FOR THE LOWER PONNAIYAR AQUIFER SYSTEM, TAMIL NADU

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AQUIFER MAPPING AND AQUIFER MANAGEMENT PLAN FOR THE LOWER PONNAIYAR AQUIFER SYSTEM, TAMIL NADU

1.0. INTRODUCTION

National Project on Aquifer Mapping (NAQUIM) initiated by Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India with a vision to identify and map the aquifers at the micro level with their characteristics, to quantify the available groundwater resources, to propose plans appropriate to the scale of demand and institutional arrangements for participatory management in order to formulate a viable strategy for the sustainable development and management of the precious resource which is subjected to depletion and contamination due to indiscriminate development in the recent past.

Groundwater is being increasingly recognized as a dependable source of supply to meet the demands of domestic, irrigation and industrial sectors of the country. The development activities over the years have adversely affected the groundwater regime in many parts of the country. Hence, there is a need for scientific planning in development of groundwater under different hydrogeological situations and to evolve effective management practices with involvement of community for better groundwater governance.

Aquifer Mapping has been taken up in Lower Ponnaiyar Aquifer system in a view to formulate strategies for sustainable management plan for the aquifer system in accordance with the nature of the aquifer, the stress on the groundwater resource and prevailing groundwater quality which will help in drinking water security and improved irrigation facility. It will also result in better management of vulnerable areas.

1.1. Objectives

The objectives of the aquifer mapping project in Lower Ponnaiyar Chennai aquifer system can broadly be stated as

- To define the aquifer geometry, type of aquifers and their lateral and vertical extent
- To determine the groundwater regime scenario
- To determine the hydrogeochemical characteristics of the aquifer units
- To define 2D and 3-D dispositions of the aquifer units.
- To estimate the availability of groundwater resources in the aquifer system
- To develop a sustainable groundwater management plan for the aquifer system.

1.2. Scope of the Study

The important aspect of the aquifer mapping programme is the synthesis of the large volume of data already generated during specific studies carried out by CGWB and various Government organizations with a new data set generated that broadly describe the aquifer system. The available generated data are assembled, analysed, examined, synthesized and interpreted from available sources. These sources are predominantly non-computerized data, which is to be converted into computer based GIS data sets.

Data gaps have been identified after proper synthesis and analysis of the available data collected from different state organisations like TWAD Board, PWD, Agricultural Engineering Department, etc. In order to bridge the data gap, data generation programme has been formulated in an organised way in the study area. Exploration work has been carried out in

different segments of the regions and aquifer parameters have been estimated. Groundwater monitoring regime has been strengthened by establishing additional monitoring wells. 2D and 3D sections have been prepared twice, one prior to the generation of data based on the data collected, assembled and synthesized through different sources and two, after generation of data at identified gaps. The latter prepared maps are of more realistic as the data points are more closure.

1.3. Issues of the study area

The main issues pertaining to the Lower Ponnaiyar aquifer system are as follows (**Figure 1**)

- a. Over exploitation and reduction of groundwater resources
- b. Threat of seawater intrusion along the coast
- c. Massive formations – Poor Aquifers

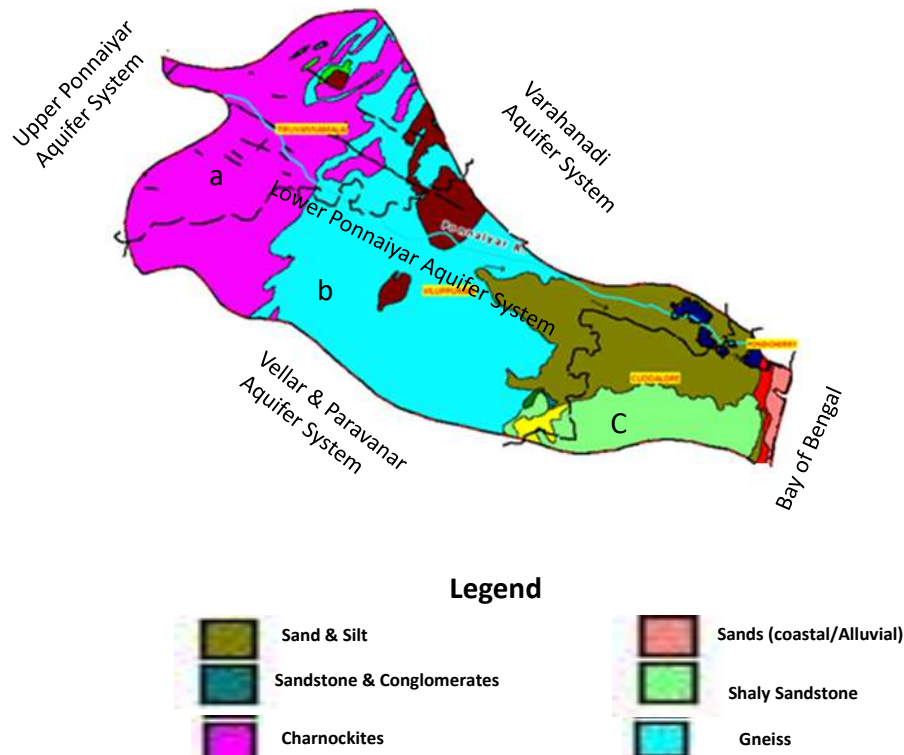


Figure.1. Issues pertaining to the Lower Ponnaiyar Aquifer system

1.4. Approach & Methodology

Integrated multi-disciplinary approach involving geological, geophysical, hydrological and hydrogeological and hydrogeochemical components were taken up in 1:50000 scale to meet the objectives of study. Geological map of the study area has been generated based on the GSI maps, geophysical data have been generated through vertical electrical soundings and geoelectrical layers with different resistivity have been interpreted in corroboration with the litho stratigraphy of the observation wells and exploratory wells down to depths of 200 m bgl and 300 m bgl for hard rock & soft rock respectively. Hydrological and Hydrometeorological data have been collected from state PWD and IMD departments. Drainage, Soil and Geomorphology of the sub-basin were prepared based on the IRS –IC data, obtained from Institute of Remote Sensing, Anna University, Chennai.

Based on the data gap analysis data generation process has been scheduled through establishing key observation wells, pinpointing exploratory sites for drilling through in-house and outsourcing, collecting geochemical samples in order to study groundwater regime, geometry of the aquifer and aquifer parameters, and quality of the groundwater respectively. Groundwater recharge and draft have been computed through different methods and resources of the aquifer system estimated through groundwater balance method.

Based on the above studies Management strategies both on the supply side through augmentation of groundwater through artificial recharge and water conservation and on demand side through change in irrigation pattern have been formulated for sustainable management of the groundwater resource.

1.5. Study area

The Lower Ponnaiyar aquifer system covering an area of 4873 sq.km comprises of 60 sq.km of hilly area and 4813 sq.km of mappable area is situated between latitudes 11°36'N - 12°21'N and longitudes 78°43'E - 79°48'E. It is bounded by the Varahanadi aquifer system in the North, the Vellar and the Paravanar Aquifer system in the South, the Upper Ponnaiyar aquifer system in the Northwest and the Bay of Bengal sea on the east. The aquifer system covers three district viz Cuddalore district (covers 904 km²), Tiruvannamalai (covers 1372 km²) and Villupuram (2597 km²). This aquifer system covers partly or fully 38 firkas out of which 17 are over exploited/critical firkas (**Table 1**). The major part of the basin area comes under Viluppuram district; Tiruvannamalai district and only Northern coastal part of Cuddalore district are covered. Both the Ponnaiyar and Gadilam Rivers carries floodwater and drains Villupuram, Tiruvannamalai and Cuddalore districts and its environs. These rivers irrigate its banks and carry only the flood discharge during the northeast monsoon period for a few days. The administrative map of the Lower Ponnaiyar aquifer system is presented as **Figure 2**.

Table.1 Districts and Firkas of the Lower Ponnaiyar Aquifer system

S. No.	District (parts)	Area (Sq. Km.)	No. of Firkas	OE and Critical Firkas
1	Cuddalore	904	6	1
2	Tiruvannamalai	1,372	11	8
3	Villupuram	2,597	21	8
Total		4,873	38	17

1.6. Data availability

During the aquifer mapping period, existing data of CGWB i.e. exploration, depth to water level, water quality, geophysical logging and groundwater resource data have been collected and compiled. In addition to this, borewell data, water quality & water level data have been collected from Tamil Nadu Water Supply and Drainage Board. Cropping pattern and soil data has been collected from Agricultural Department. Groundwater level and groundwater exploration data have been collected from Public Works Department. Thematic layers such as geology (GSI), soils, land use & land cover, geomorphology, etc., from various State Government agencies has been collected, compiled and used in this study.

1.7. Data adequacy

Exploratory well data is available for 146 wells drilled by CGWB (61 Nos.) and State Departments (85Nos). Water level (94 Nos.) and water quality monitoring data (85 Nos.) data are available for a long period i.e., more than ten years. One hundred and eighty five numbers of vertical electrical sounding (VES) data are available. Cropping pattern and soil data have been collected from Agricultural and Statistics Department. After plotting the available historical data on 1:50,000 scale maps, data gaps were identified and data generation process was taken up in those gap areas to complete the Aquifer map on the desired resolution of 1:50,000 toposheets. A proposal for construction of 19 wells (Hardrock 13 Nos. and Softrock 6 Nos.) through outsourcing has been identified to complete the gaps in the data.

1.8. Data Gap Analysis & Data Generation

As per the guidelines of data gap analysis for aquifer mapping, it is proposed to have 95 Nos. of monitoring wells to monitor the regime of the first aquifer and 8 bore wells for the second aquifer monitoring and to know aquifer parameters. Dug wells 98 Nos. have been established to monitor the first phreatic aquifer and 6 bore wells drilled down to a depth of 200 m bgl to know the aquifer characters of semi-confined aquifer system which is extensively developed in recent years. It is also proposed to carry out quality monitoring through 85 Nos. of established dug wells for first phreatic aquifer and through 20 Nos. of irrigation/domestic bore wells for the second semi-confined aquifer in order to assess the groundwater quality for drinking and irrigation purposes. Similarly as per the proposed data gap analysis of aquifer mapping, 30 Nos. of VES have been taken up down to the depth of 200 m bgl to know the vertical characteristics of the aquifer down to 200 m bgl.

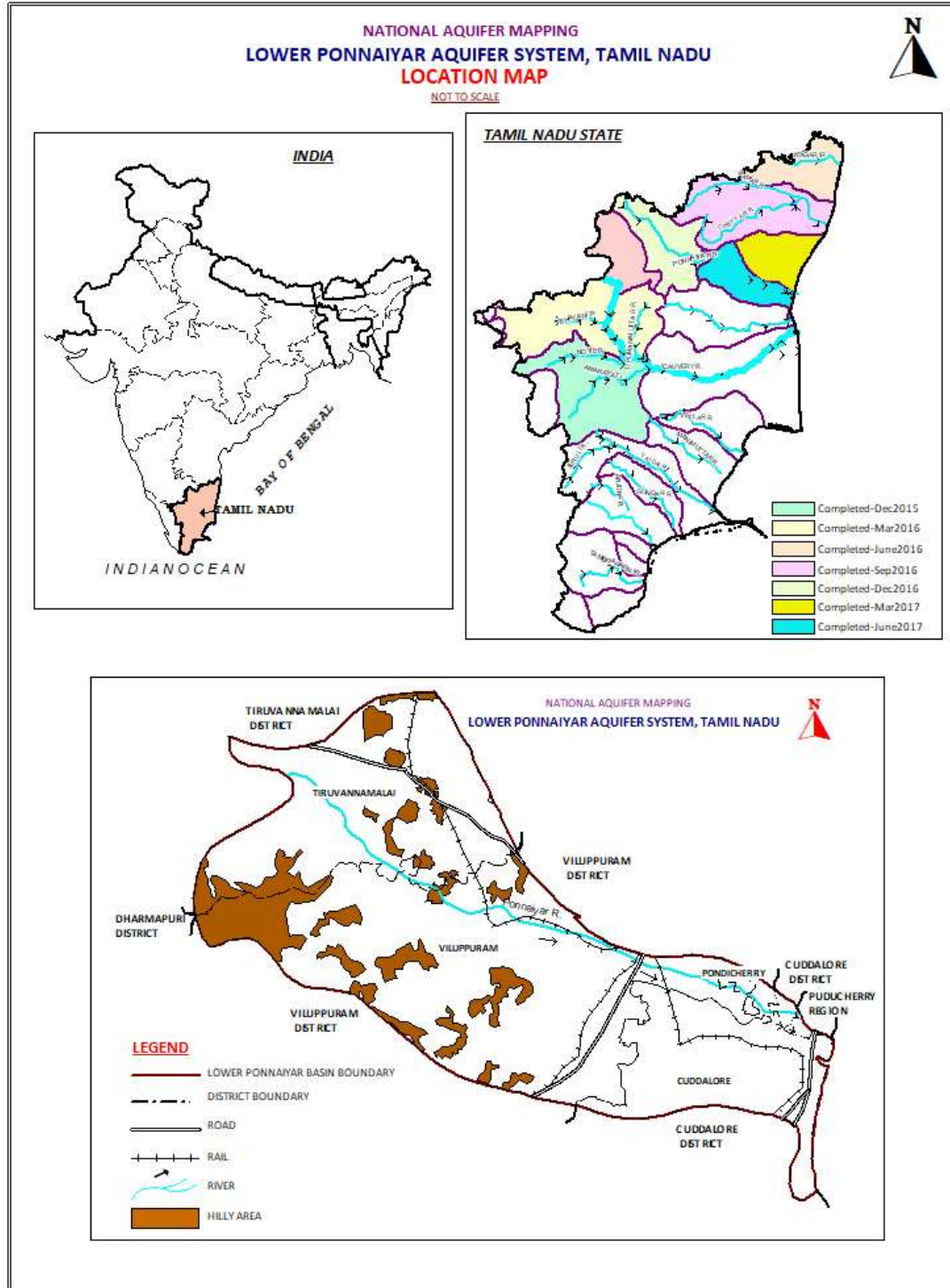


Figure 2. Administrative setup of the Lower Ponnaiyar aquifer system

1.9. Climate and Rainfall

The basin area experiences tropical climate, being hot and dry for the greater part of the year. The period from March to June is generally hot. The temperature ranges from 20° to 40°C. The area receives rainfall through both south-west and north-east monsoons. About 40 percent of the precipitation is contributed by south-west monsoon and north-east monsoon accounts for 30 to 40 percent. The average annual rainfall for the basin area is 1197mm.

1.10. Physiography and Drainage

The term physiography deals with the actual existing in-situ conditions of the land, depending upon the structures, formational changes and available natural agencies such as hydroigne and epigiene agents. Physiographically, the Lower Ponnaiyar aquifer system region comprises of interdependent river basin of Ponnaiyar and Gadilam (**Figure 3**). These mostly flow from west to east. The River Ponnaiyar originates from Karnataka state whereas the River Gadilam originates from Villupuram district. All these rivers stretching from west to east confluence with the Bay of Bengal in the East.

The maximum and minimum elevations of the Lower Ponnaiyar aquifer system are from 712 m amsl in the Northwest to sea level in the East. The nominal topography is generally sloping towards the Southeast and East. The general trend of dipping ranges from West to East. The Hydraulic gradient and the flow lines of ground and surface water are towards east, the sea.

The study area comprises of the major rivers the Ponnaiyar in the north and the Gadilam River in the south. There is more number of systems and non-system rain fed tanks lies in the study area. These water bodies were very specifically useful in meeting the drinking water needs of the area and few are rarely for irrigation uses.

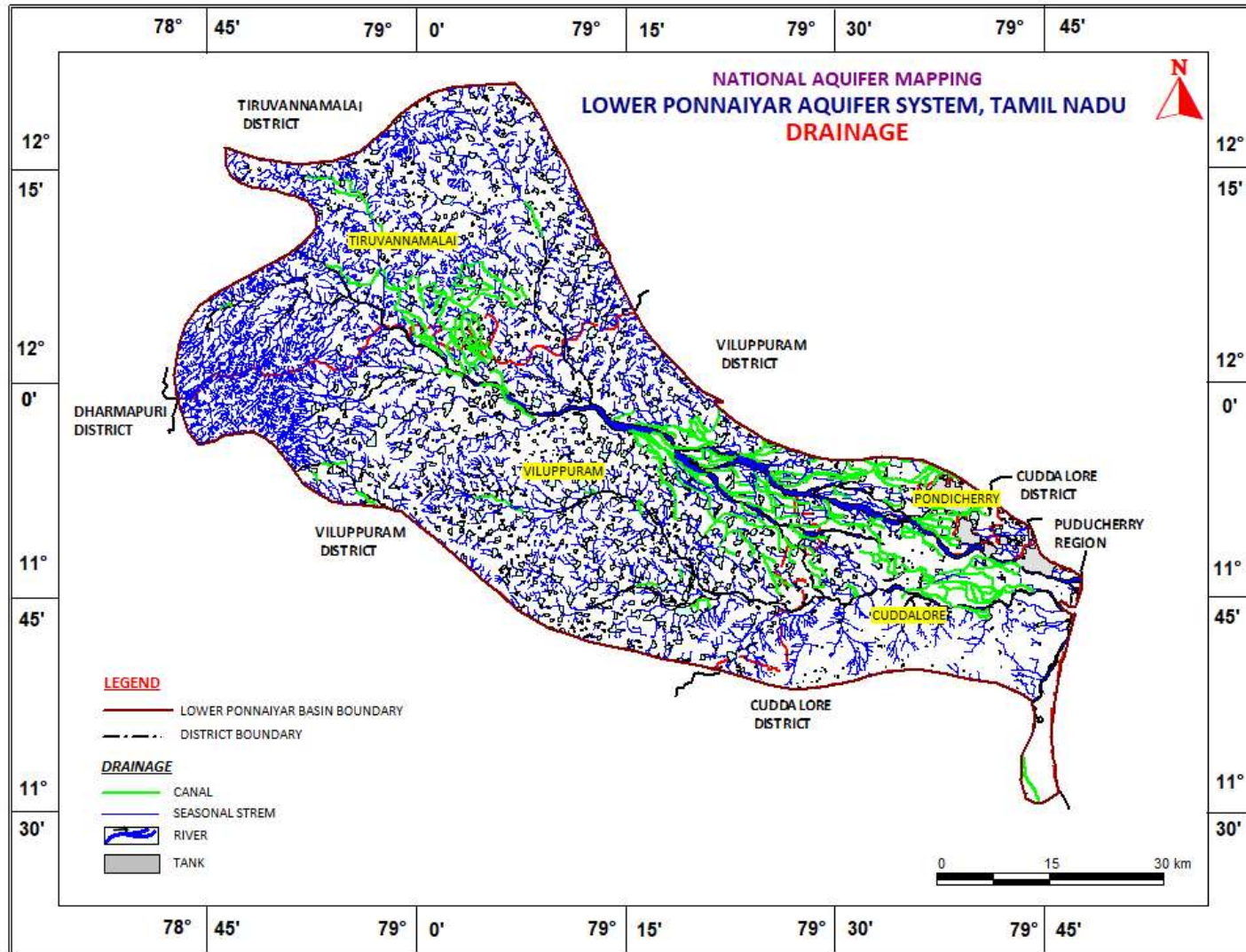


Figure 3. Drainage of the Lower Ponnaiyar aquifer system

1.11. Geomorphology

The geomorphology of an area is the external appearance of landforms that gives a reliable picture of the underground strata and its physio-chemical condition. The different formations and the layer confirms and cogent to its geomorphology. Three major geomorphic units can be demarcated viz. hills & Plateaus, Piedmont zone and plains with few units of urban areas and coastal landforms. The eastern part adjoining to beach and shores covers coastal geomorphic units. The inland topographical units are being described as the piedmont geomorphology.

The coastal landforms include the beaches, beach ridges and beach terraces. The beaches are landforms covered by sand and sandy materials having high porosity and unconsolidated loose formation with voids and spaces. Beach Ridges are elevated sandy tops adjoining the beaches and are good horizons for groundwater presence. The step like projection bordering the sandy terrain and the shoreline are called as beach terraces. These terraces are undulated and according to the forces of the tide and their deposition. These terraces were having a very low groundwater gradient that too towards the sea as they are slopping towards them.

Nearly 65% of the region is covered by Piedmont zone is represented in **Figure 4**. These are terrestrial erosional surface inclined at a low angle and lacking significant relief. The piedmonts regions constituting of boulders, cobbles, pebbles, grovels, sand, silt and clay of varying lithology. These are formed by coalescence of several alluvial fans by streams covering large area at the foothills, with gentle slopes, in humid to sub humid in regions (upper humid to sub humid regions).

Twenty five percentage of the region is covered by plains. These plains are the inland topography where the terrain sediment such as laterite, limestone and other calcareous sedimentary have been leached and washed away by erosion. According to groundwater point of view they are serving poorer groundwater storage. The surface of these formations are showing a honeycomb structures and the water level are medium to high from the top surface. These were located in the eastern part of the aquifer system.

Plain area is occupied by river alluvium. In these areas the thickness of the alluvial sand varies from 1 to 18 m. **Figure 5** illustrates the level I classification of geomorphological features of the Lower Ponnaiyar aquifer system.

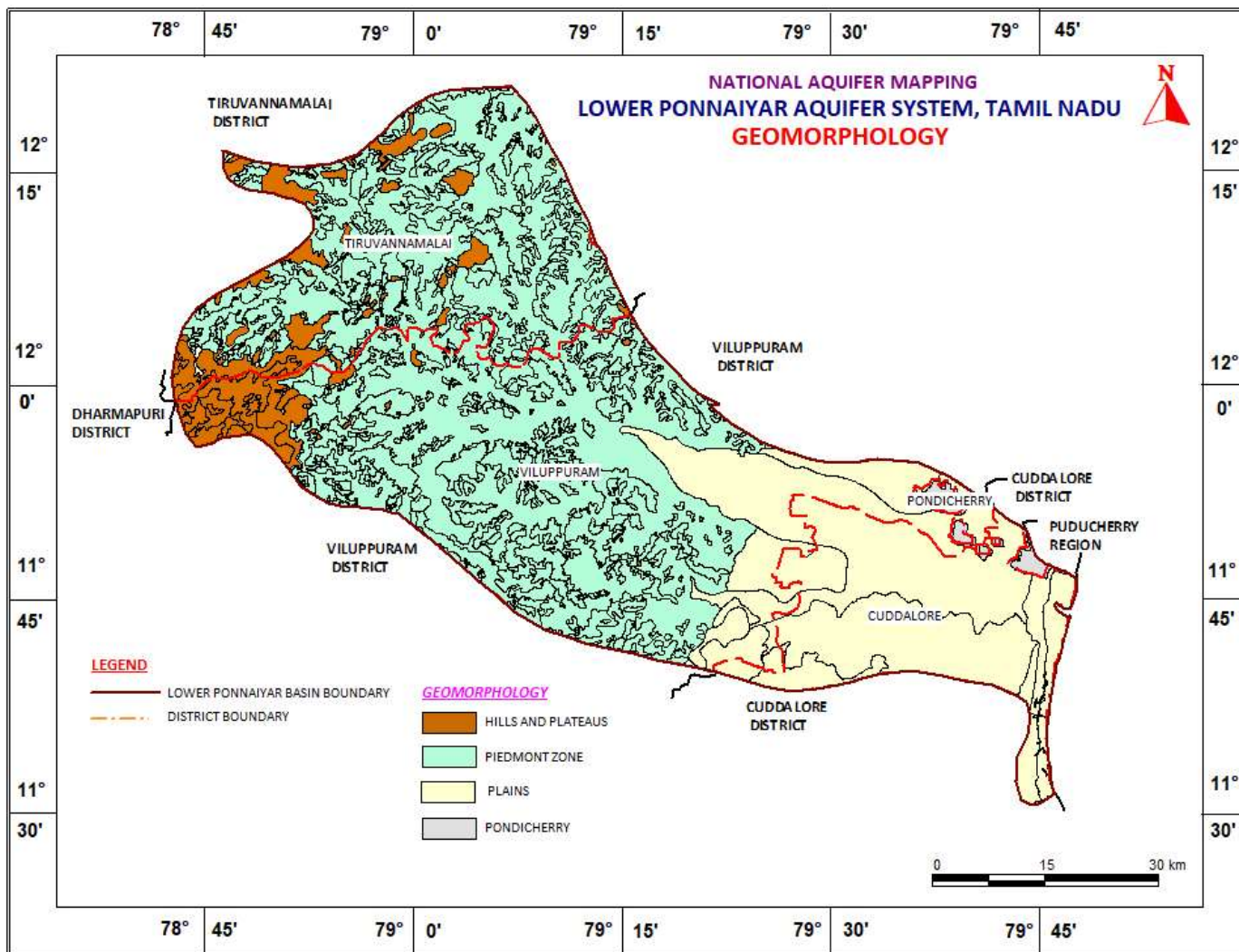


Figure 4. Geomorphology of Lower Ponnaiyar Aquifer System

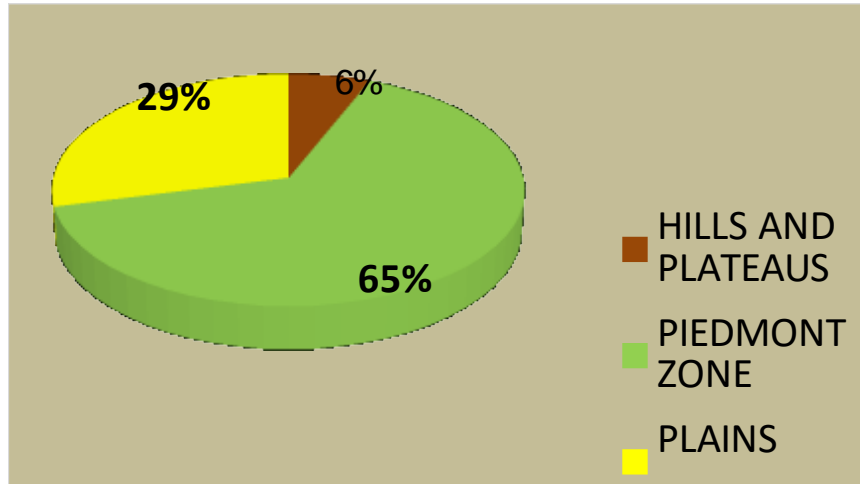


Figure 5. Level I classification of geomorphology of the Lower Ponnaiyar aquifer system.

1.12. Landuse and Land cover

Agricultural land occupies nearly 3216 sq.km i.e., 66% of the Lower Ponnaiyar aquifer system and spread throughout the study area. Deciduous forest occupies nearly 682 sq.km (i.e., 14 %) of the area taking the green area to 80% (Figure 6 & 6a). Water bodies, Waste land and built up/urban area occupies 8, 8 and 4 % respectively.

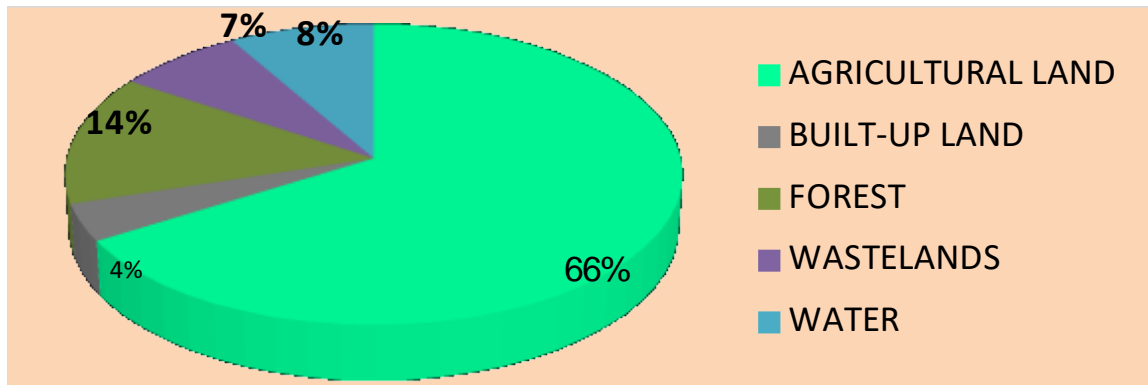


Figure 6 . Level 1 Landuse/Land analysis diagram of the Lower Ponnaiyar aquifer system

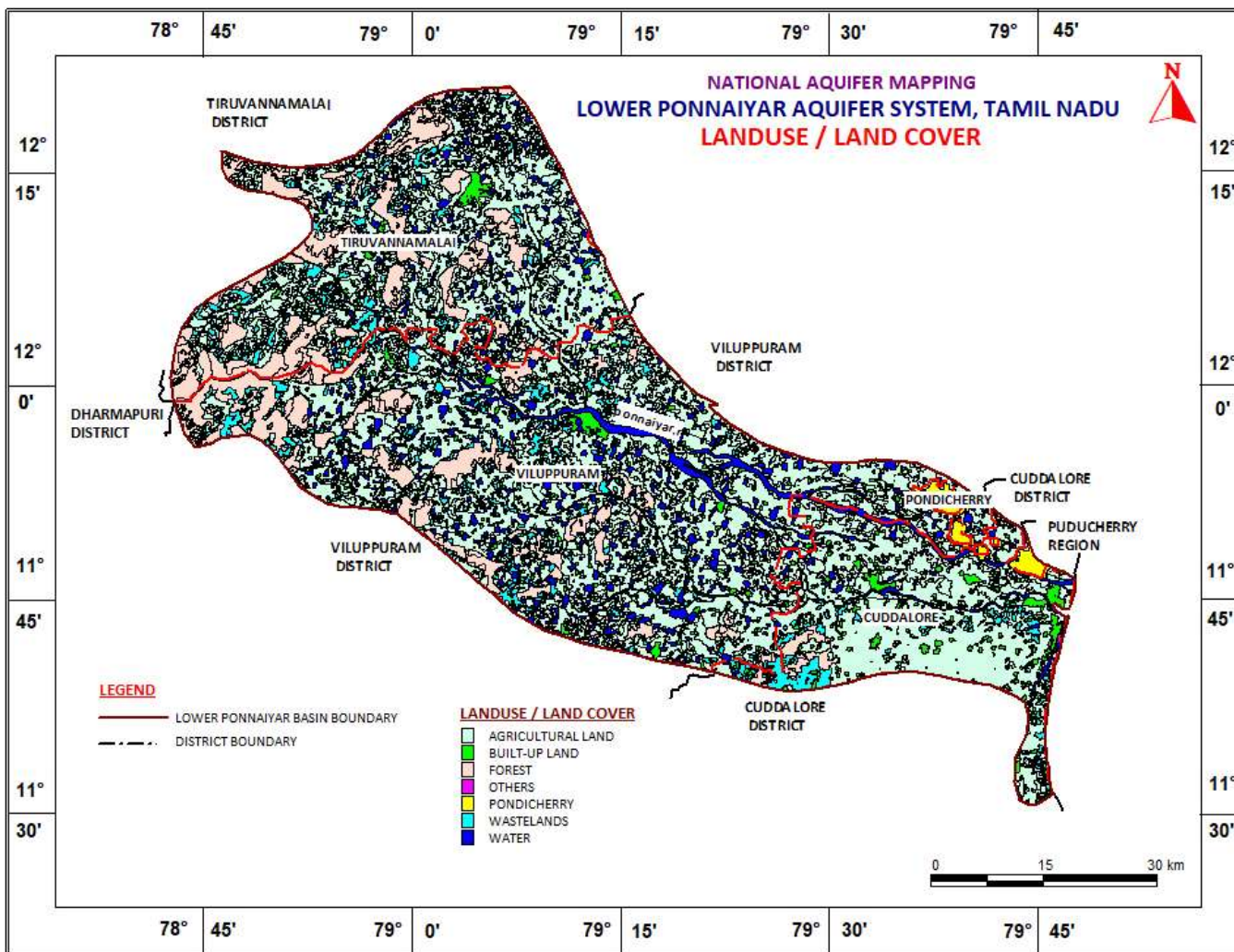


Figure 6a. Level-3 Landuse/Land cover of the Lower Ponnaiyar aquifer system

1.13. Soils

Soils play a major role in hydrologic control of the infiltrating water. Soils are generally classified by taking their color, texture, fertilities and chemical combinations includes salts, minerals and the solution effect over them. The major soil types in the study area are inceptisols, alfisol and entisols (**Figure 7**).

Entisols are alluvial soils comprising sand and sandy materials occurring on the beaches and at the confluence of rivers and by the side of the rivers & channels. Because of their permeability, these soils while being good storehouses of groundwater are not fit for paddy cultivation. Inceptisols are the major soil group found in the study area and consists of the red sandy to brownish clayey soil fragments derived from parent rock and is spread all along the northern and central parts of the area. The Inceptisols are suitable for agricultural hold moderate groundwater reserves. Vertisols are clayey soil with high specific water retention capacity but poor in supporting agriculture. The rate of infiltration is very low in this type and ranges from 1 to 3 cm / hr for fine red sandy clay, clayey sand, sandy clay, sand fine to medium, sand medium to coarse and very coarse and gravel and for weathered rock, fractured and jointed rock it varies from 0.2 to 0.5 cm / hr. which normally occur in the study area.

1.14. Slope

The slope of any terrain plays a vital role in allowing the infiltration of water into the subsurface system. In regions of gentle slope the runoff will be slow and will have more time for percolation of rainwater, whereas steep slope facilitates high runoff allowing less residence time for rainwater to percolate. The elevation of the Lower Ponnaiyar system ranges from 712 m amsl in the west to sea level in the east.

1.15. Agriculture

Agriculture is the main stay of the rural population in the entire study area. The total irrigated area of the Lower Ponnaiyar aquifer system area is 1853 sq.km with main water intensive crops irrigated are Paddy, sugarcane and banana covering about 1289 sq.km (**Figure.8**). The less water intensive crops irrigated are maize, tomato, groundnut, chilly and Jasmine. The other crops include cotton, ragi etc., and other minor crops are turmeric, flowers and vegetables.

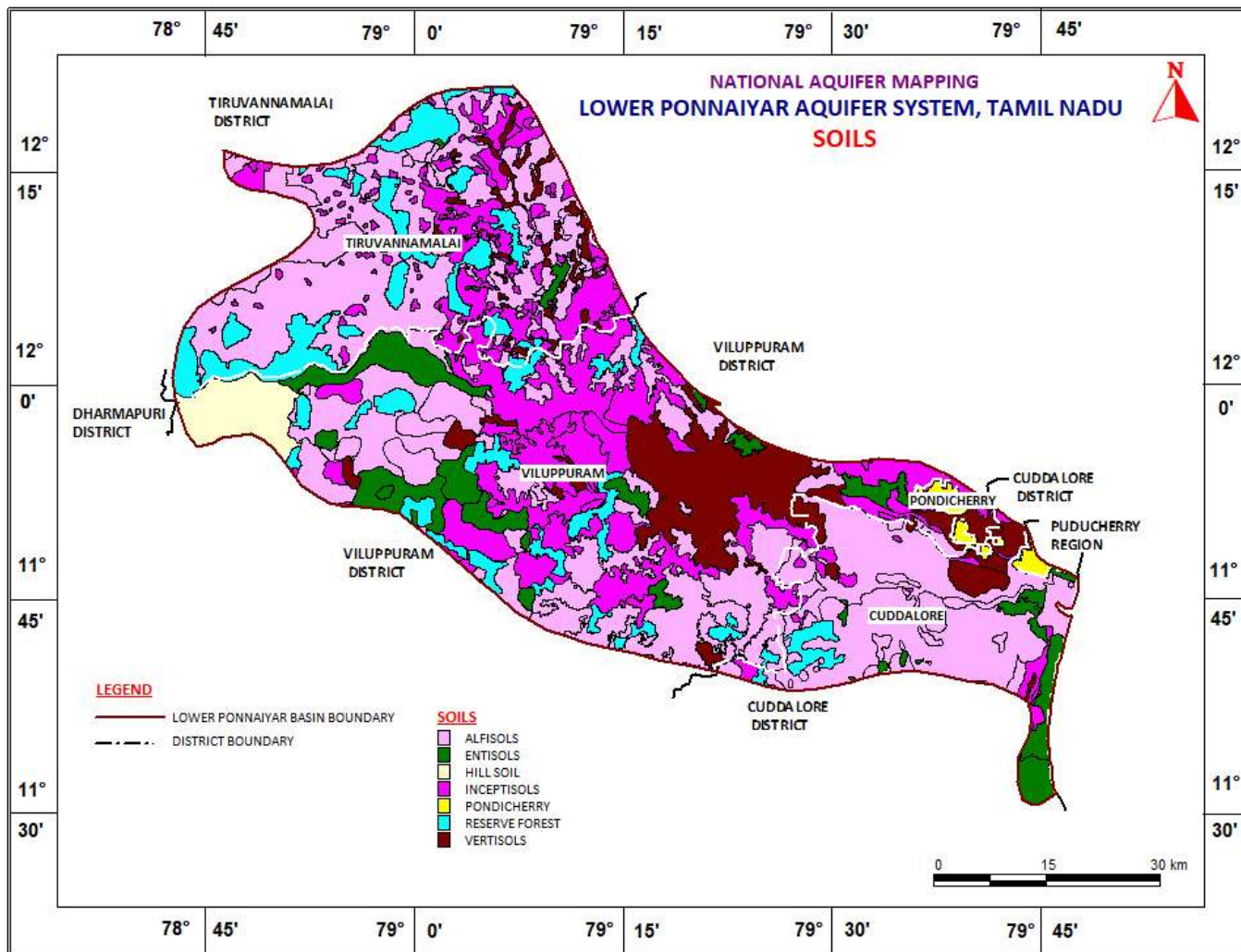


Figure 7. Soils of Lower Ponnaiyar aquifer system

1.16. Irrigation

The total area irrigated under different crops is 1,59,500 ha out of the total geographical area of 6,28,800 ha, which accounts for 44.11%. Paddy is the main water intensive crop in the study area. More than 80% of the total requirement of irrigation is met from groundwater resources. The four major reservoirs present in the study area is allocated for drinking water supply.

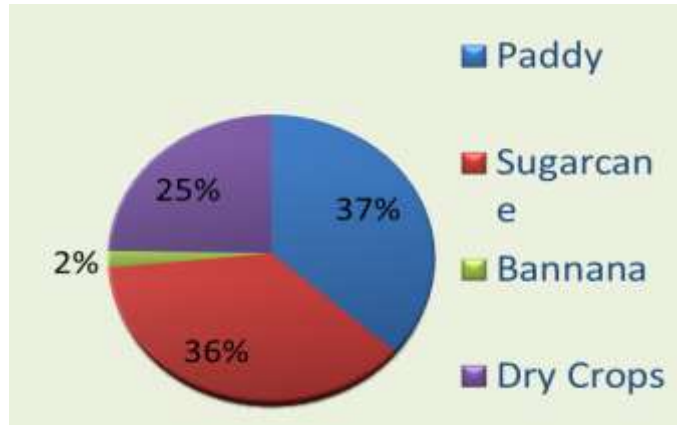


Figure 8. Crop-wise distribution in the Lower Ponnaiyar aquifer system

1.17 Geology

Geologically, the Lower Ponnaiyar aquifer system comprises of Fluvial & Coastal alluvium, Cuddalore Sandstone and Eocene Sandstone underlain by Precambrian gneisses and Charnockites. Charnockites and Gneiss form the major rock types and constitute the residual hills around north western, western and central parts of the study area. Layers of Tertiary formations are found in the eastern portion and fluvial/coastal alluvium occupies the eastern part of the study area (**Figure 9**). Geologic succession of the Lower Ponnaiyar aquifer System is presented in **Table 2**.

Table 2. Geological succession of the Chennai Aquifer System

S.No.	Group	System	Lithology	Groundwater relevance
1.	Quaternary	Recent – Sub-recent	Soils, coastal /river Alluvium (sand & silt), Black Clay, Laterite	Moderate to very good porous aquifer system
2.	Tertiary/Cretaceous	Sandstone (Cretaceous to Pliocene)	Sandstone & and shale	Moderately porous Aquifer.
3.	Azoic	Archaean	Charnockites, Granites, Gneisses.	Weathered and Fractured Aquifer units.

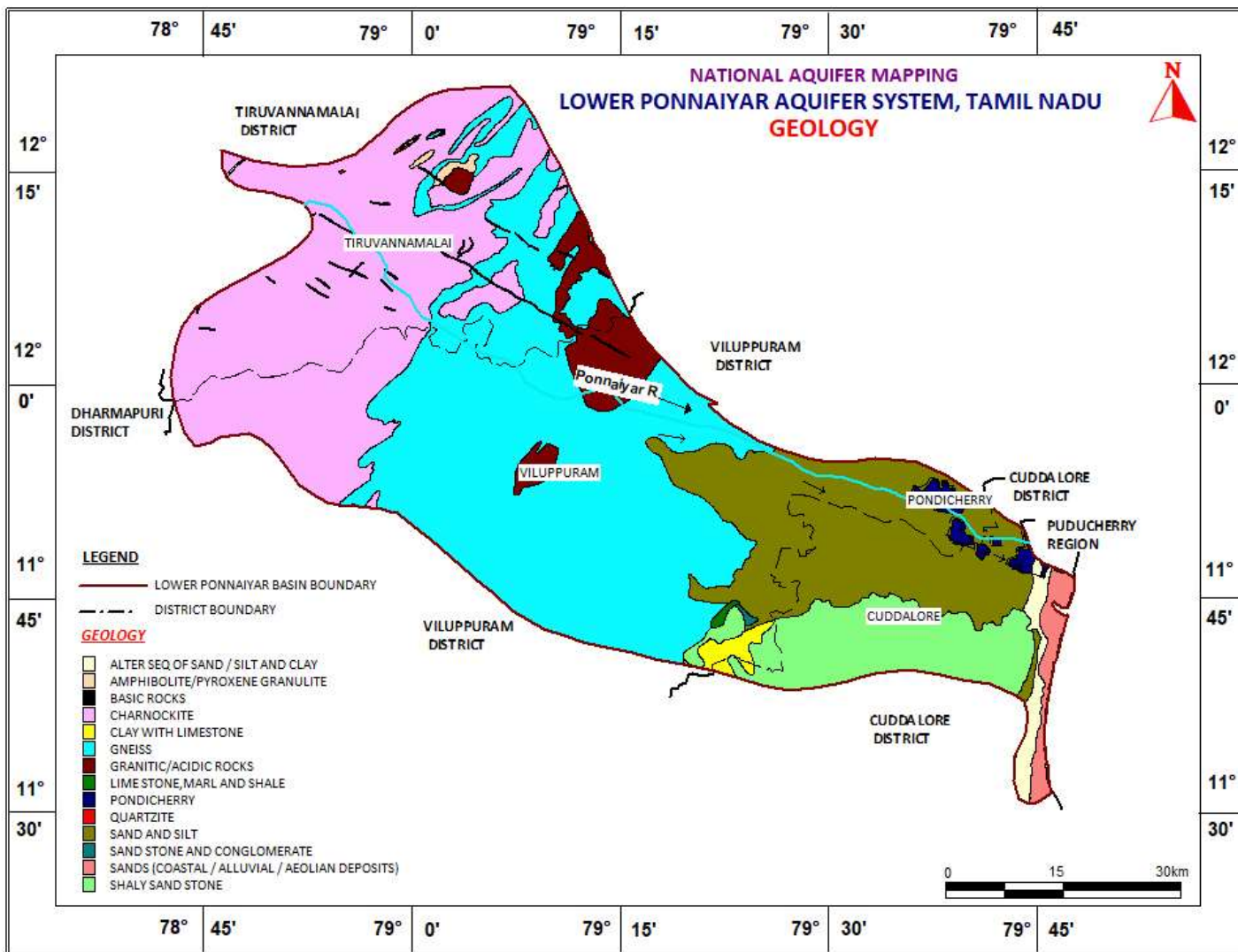


Figure 9. Geological map of the Lower Ponnaiyar Aquifer system

1.17.1. Precambrian Rocks

The hard rocks include granite, gneissic complex and Charnockite associated with basic and ultra-basic intrusive. Charnockite form the major rock types and constitute the residual hills around Tiruvannamalai and Villupuram area and spread over Northwestern, western and central parts of the aquifer system constitute about 70% of the area.

1.17.2. Sandstone Formations of Eocene age

The sandstone formations are of Eocene age also known as Neyveli/Gopurapuram/Kadapperikuppam formation composed of sandstones which are made up of fine to coarse grained sand and pale grey in colour with occasional clay intercalations. Similar to the Cuddalore sandstones, Eocene sandstones are also friable in nature. They were shallow in the central part and deeper in the eastern part towards the sea. Eocene sandstone formations are overlain by Ottai clay stone of Cretaceous age in the fringe of the hard rock area of the aquifer system.

1.17.3. Cuddalore Formations of Mio-Pliocene age

The Cuddalore formations comprise of argillaceous sandstone, pebble bearing sandstone, ferruginous sandstone, grits and clay beds and are whitish, pinkish, reddish in colour which are friable in nature. The sands and sandstones of Cuddalore formation of Mio-Pliocene age range in size from fine to very coarse grained and sub-angular to sub-round in shape, occasionally with rounded pebbles of quartz with diameters even upto 3 cm. The Cuddalore sandstones occur beneath the alluvium formation and in place where alluvium formations are absent they are exposed on the surface e.g. Tiruvendipuram, Naduveerapattu villages etc.,. Laterite occurs as cap rock in the central and northern portions of the study area.

1.17.4. Alluvium formations of Recent age

The alluvium formations consist of soils, sands, laterites and recent alluvium and are underlined by the gneiss rock in the central part and by Cuddalore sandstone of Mio-Pliocene age in the eastern part and extending its eastern boundary to the Bay of Bengal. Laterite and lateritic gravels over lie Cuddalore sandstone in the south eastern part of the aquifer system along the Gadilam river and are generally ferruginous.

2. DATA COLLECTION AND GENERATION

Periodical data pertaining to groundwater levels, quality, pumping tests and slug tests were collected during aquifer mapping studies apart from water sample collection to assess the groundwater quality. In addition Geophysical data has been generated through conducting Geo electrical soundings after evaluation of data gap analysis.

2.1. Hydrogeological data

The periodical monitoring of groundwater level implies the groundwater recharge and discharge (natural and manmade) occurring in the aquifer systems. It also reveals that the interaction between surface and sub-surface water systems. In Lower Ponnaiyar Aquifer system area, 85 Nos. of groundwater monitoring wells (which included 20 CGWB monitoring wells, 65 State department wells) and 09 piezometers of CGWB are monitored periodically. The locations of monitoring wells are presented as **Figure 10**.

2.2. Hydrochemical data

The groundwater quality of the Lower Ponnaiyar Aquifer System was studied by analysing available water quality data i.e. CGWB monitoring open wells 20 numbers, CGWB Piezometers 9 numbers and State government monitoring wells 65 numbers. Long term record was available only for 85 numbers of open wells. The sample locations in the Lower Ponnaiyar aquifer system is presented in **Figure 11**.

2.3. Geophysical data

The geophysical survey was conducted in the study area consisting of Vertical Electrical Soundings (VES) by employing Schlumberger configuration with maximum half current electrode separation of 300m. The objective of the study is to decipher the sub surface conditions such as weathered and fractured layer resistivities, thicknesses and massive formations up to the depth of 200 m bgl. A total number of 185 VES were carried out and geoelectric layers inferred through interpretation of the results obtained. The locations of the VES are presented in **Figure 12**.

2.4 Groundwater Exploration data

Data of 146 Nos. of exploratory wells were drilled in the Lower Ponnaiyar aquifer system (61 Nos. CGWB and 85 Nos. State department wells) prior to National Aquifer Mapping project was compiled and analysed (**Figure 13**). These wells were plotted on the 1:50,000 scale topographical map and as per the NAQUIM guidelines for the hard rock & soft rocks, data requirements were identified on the plotted topographical map. Based on the data requirements, 19 Nos. of exploratory wells have been recommended for drilling through outsourcing activity as part of the data generation. The data such as lithology, fracture depth, yield, water level, aquifer properties were generated and utilised to depict the prevailing aquifer systems of the basin (**Annexure-1**). Similarly wells drilled by state department, 85 Nos. wells drilled upto to the depth of 60 m bgl was used for deciphering the first aquifer.

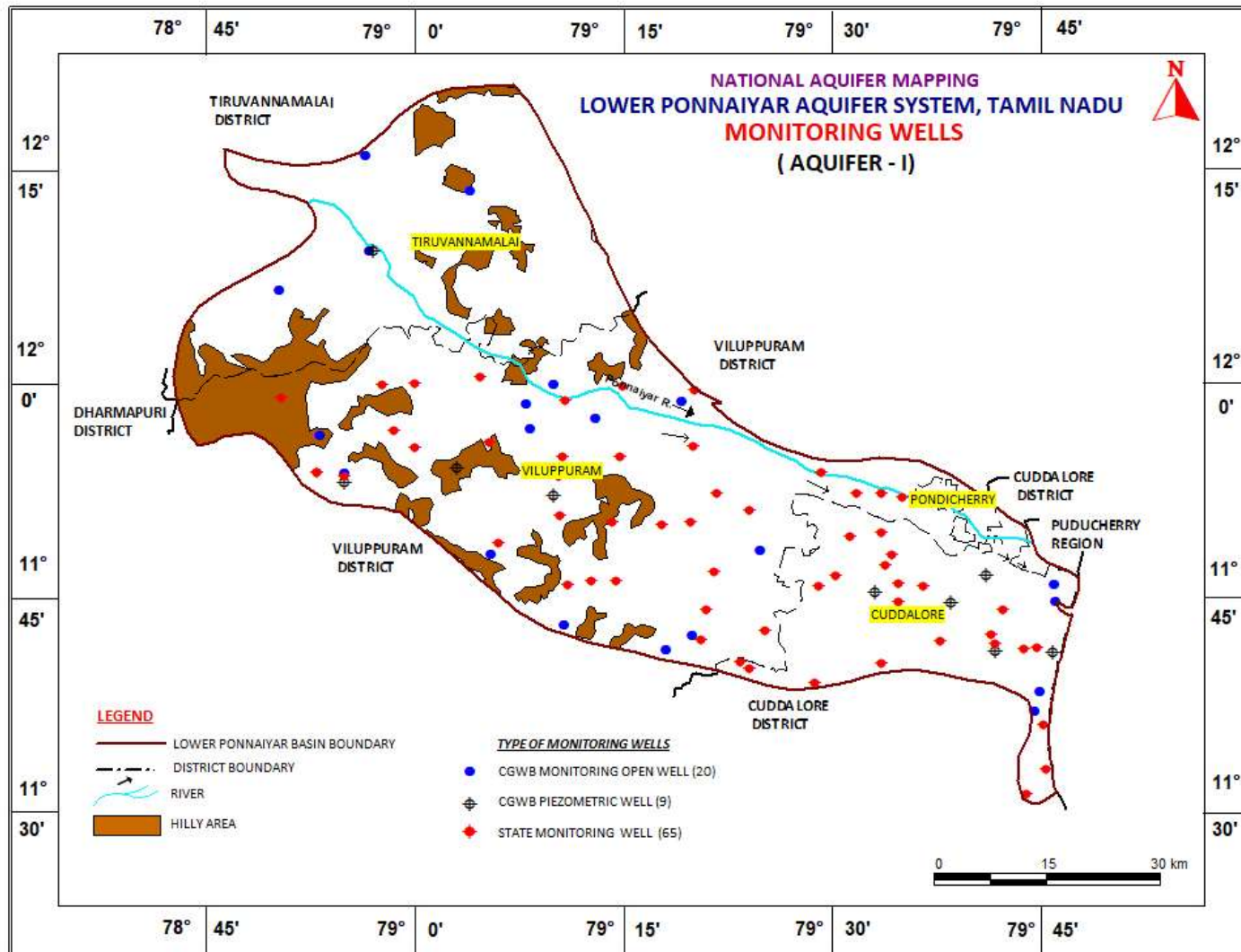


Figure 10. The locations of monitoring wells of the Lower Ponnaiyar aquifer system.

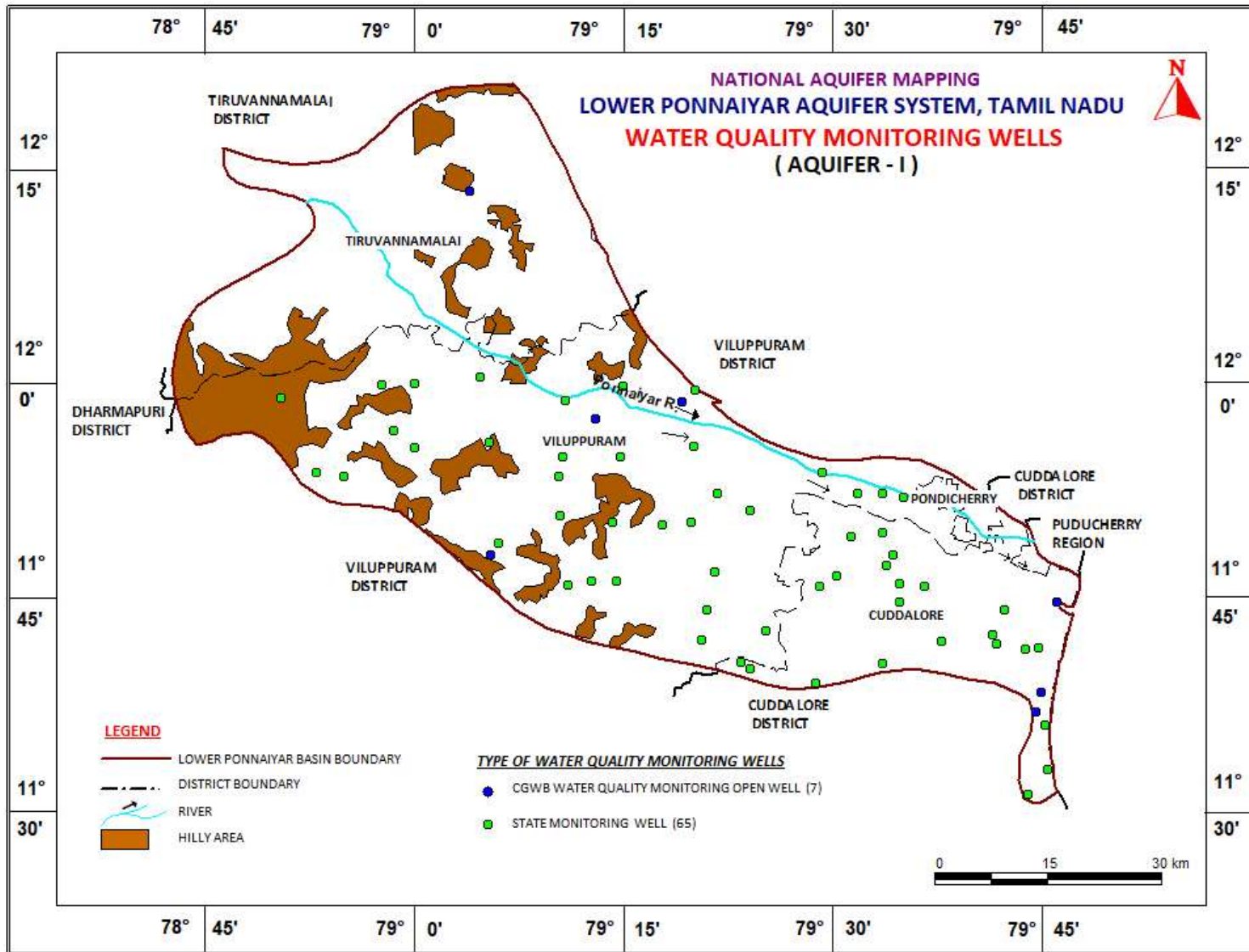


Figure 11. Locations of Groundwater quality Monitoring Wells of Lower Ponnaiyar Aquifer System

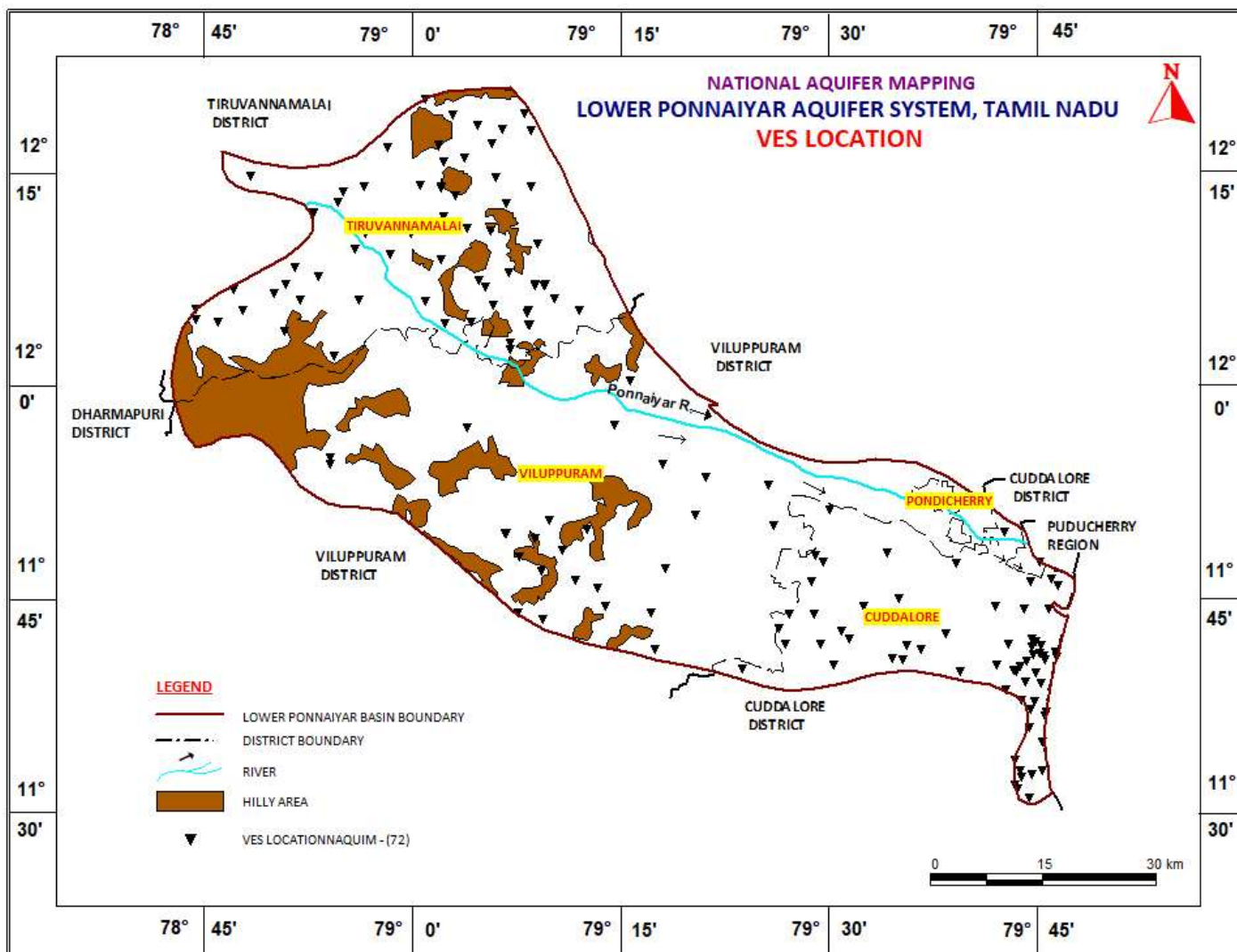


Figure 12. Locations of Vertical Electrical Soundings (VES) of Lower Ponnaiyar Aquifer System

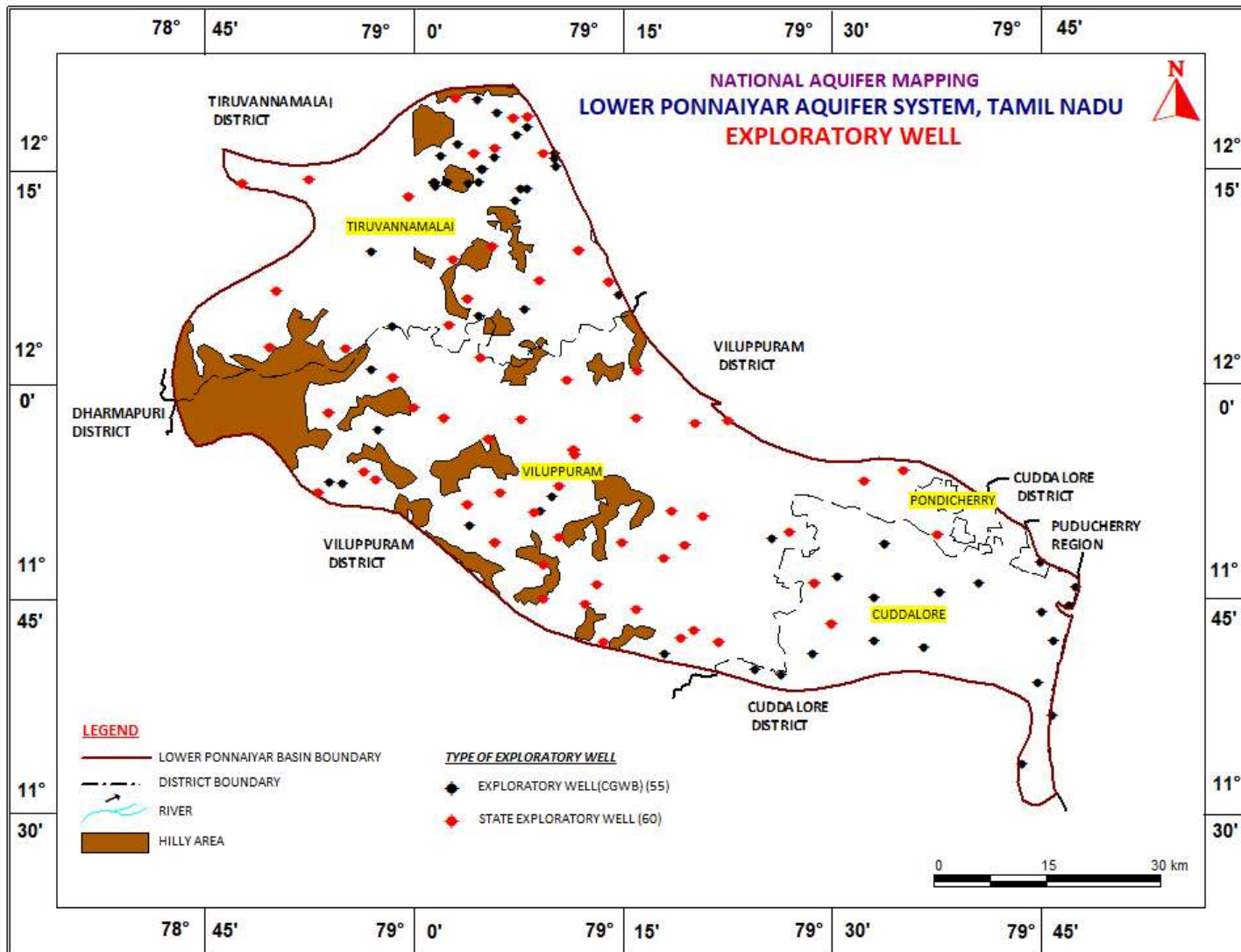


Figure 13. Locations of all Exploratory Wells of Lower Ponnaiyar Aquifer System

3. DATA INTERPRETATION, INTEGRATION AND AQUIFER MAPPING

3.1 Hydrogeological Data Interpretation and aquifer disposition

Lower Ponnaiyar aquifer system area is divided into A and B regions. A-Region represents area underlined by Charnockite & Gneissic rocks, B region represents area underlined by Sedimentary rocks. Aquifer units falling in “A” regions are named as A1 & A2, whereas aquifer units falling in “B” regions are named as B1, B2, B3& B4.

3.1.1. Hydrogeology of hard rock region (A):

Hard rock region comprising of gneissic and Charnockite rocks is found in the western and central portions of the Lower Ponnaiyar aquifer system. Hard rock regions cover an area of 3411.1 sq.km. The gneissic formation covering an area of 1705.55 sq.km encompasses 24 firkas (**Table 3**). The Charnockite formation covers an area of 1461.9 sq.km and is found in 16 firkas. The gneissic formation and Charnockite formation form two aquifer units namely the weathered and fracture/jointed aquifer unit (**Figure 18**).

3.1.1.1. Aquifer Unit I – Weathered :

The weathered aquifer unit occurs from the ground level and has a minimum thickness of 6 m and maximum thickness of 40 m with average thickness of 11-17.5 m. 2D disposition along Northwest to south east clearly shows the vertical and lateral distribution of the gneissic and Charnockite formation. Yield of this weathered aquifer unit ranges from 1.6 to 7.3 m³/hr with average of 1.6 to 2.4m³/hr. During monsoon period the wells tapping this aquifer unit sustains for 2 to 4 hrs/day of pumping, while during non-monsoon period (May to July) wells sustains for less than 1 hour/day of pumping. Groundwater occurs in unconfined condition. Weathering thickness of Aquifer unit-I, Lower Ponnaiyar Aquifer System is shown in **Figure 14**.

Table 3. Firkas in hard rock region of the Lower Ponnaiyar aquifer system.

Formation	Firkas
Gniess region: (20 firkas -full)	Ulundurpettai, Mogaiyur, Arankandana, Ariyalur (V), Rishivandiyam, Sengurichi, T.V. Nallur, Thirupalapandal, Elavarasanarkottai, Eraiyur, Vettuvalam, Veriyur, Thachampattu, Sathiyamangalam, Somaspadi , Thirukovilur, thanchampattu, Manalurpettai, Viluppuram and Kanai
Charnockitic region : (10 firkas -full)	T.V. Malai south, T.V. Malai North, Thurunjapuram, Pachal, Thanipadi, Shankarapuram, Vanapuram, Thandranpet and Vadaponparapi.

The aquifer parameter such as transmissivity in this aquifer unit ranges from 1.2 to 59 m²/day. The Specific yield of this aquifer unit ranges from 1 to 1.5% with highly potable groundwater quality. The general EC of this aquifer unit ranges from 750 -3340µS/cm with the average range of 750 to 2250 µS/cm. There are some isolated pockets adjoining the Villupuram urban area and near the sea coast the groundwater quality is beyond permissible limit for drinking and irrigation purposes.

3.1.1.2. Aquifer Unit II (Fractured/Jointed):

This aquifer unit comprises of fractured and jointed Gneissic and Charnockite formed due to tectonic activity. Top of this aquifer unit occurs from 6 to 40 m bgl (General 14 – 18 m bgl & Nil at some places). Based on the analysis of the 146 wells it is observed that there is a possibility of occurrence of 3 to 4 Fractures/joints exists up to 195 m bgl in the gneissic region (**Figure 15**). In Charnockite region 3 to 4 fractures are likely to be encountered and they exit only up to 150 m bgl. The distribution of the fractures with depth is given in **Table 4**. The yield of this aquifer unit II ranges from 0.5 to 13.70 m³/hr. During monsoon period the wells tapping this aquifer unit sustains for 4 to 6 hrs /day of pumping, while during non-monsoon period (May to July) sustains for 1 to 3 hour/day of pumping. Transmissivity of this aquifer unit ranges from 2.6 to 141.2 m²/day (**Table 5**). The general EC of this aquifer unit ranges from 750 to 2250 µS/cm with the minimum and maximum of 400 to 5020 µS/cm.

Table 4 . Distribution of fractures in the hard rock formation

Gneissic formation		Charnockite region	
Depth (m bgl)	% of fractures	Depth (m bgl)	% of fractures
Upto 50	0	Upto 50	50
50 to 100	20	50 to 100	50
100 to 150	60	100 to 150	0
150 to 195	20	150 to 195	0

Table 5. Salient features of the aquifer units in hardrock region of Lower Ponnaiyar aquifer system

Type of Aquifer	Formation	Top of the aquifers (mbgl)	Thickness/ occurrence of fractures (m)	Range of Yield (m ³ /h)	Sustainability (hrs)	Aquifer parameter (Transmissivity – m ² /day)	Groundwater quality EC values (µs/cm)	Suitable for Drinking
(A1) Aquifer	Weathered gneiss & Charnockites	2	6 to 40 (11 - 17.5 m)	1.6 to 7.3 (1.6 to 2.4)	Monsoon : 2-4 & Non monsoon: (May, Jun & July) < 1 to 2	1.2 to 59	1730 to 3340 (750 to 2250)	Yes - except brackish areas
(A2) Aquifer	Jointed & Fractured Gneiss/ Charnockite	6 to 40 (general 14 to 18 m bgl) Nil at some places	27 to 195 (3 to 4 fractures exist) Nil at some places	0.50 to 13.70 (1.6 to 3.2)	Monsoon: 4 to 6 hrs & Non monsoon 1 to 3 hrs	2.6 to 141.2	400 to 5020 (750 to 2250)	Yes -

3.1.2. Hydrogeology of Sedimentary area of the aquifer system (B):

Sedimentary rock region comprising of alluvium and Tertiary formations occupy the eastern part of the aquifer system. Alluvial area covers area of 846.17 Sq.Km. encompasses 10 firkas and the Tertiary formations covers about 396 Sq.Km area encompasses 3 firkas (**Table 6**). Aquifer unit-I (Alluvium and the unconfined layers of Cuddalore formations form phreatic aquifer), Aquifer unit-II (Confined aquifer unit of Cuddalore sandstone), Aquifer unit-III (Upper confined aquifer unit of Eocene sandstone formation) and Aquifer IV (Lower confined aquifer unit of Eocene Sandstone formation).

3.1.2.1 Aquifer Unit – I (B1 - Alluvium and Cuddalore Sandstone)

The top most aquifer is the Aquifer Unit –I and it is a phreatic aquifer or Water table aquifer. This aquifer unit composed of recent alluvium, Cuddalore sandstone and laterite formations. The thickness of the Aquifer Unit-I varies from 10 to 55 m and generally in the range of 18 to 24 m. The thickness is less in the western portion and gradually increases towards east. The groundwater abstraction from the aquifer is mostly by dugwells and shallow tubewells. The diameter of the dugwells ranges from 1 to 4 m and the depth ranges from 3 to 35 m below

ground level (mbgl). The dugwells are energized mostly by electric pumps and the groundwater drafted is mainly used for irrigation and domestic purposes. The depth to the water level of the phreatic aquifer ranges between 1 and 29 m bgl and yield varies from 11 to 25 m³/hr (**Figure 16**). The Electrical Conductivity of the groundwater ranges from 750 to 2250 microseimens/cm which is potable for drinking, domestic, agriculture and irrigation purposes. The high EC (2000 to 2950 microseimens/cm) in groundwater along the Uppanar river course in the coastal part is due to insitu salinity of the formations and also due to the influence of the back waters. The transmissivity of the phreatic aquifer ranges between 245 and 770 m²/day and the specific yield ranges between 12 and 18 %.

Table 6. Firkas falling in soft rock region of the Lower Ponnaiyar aquifer system

Formation and number of firkas	Name of the firkas
<u>Alluvium formation (10 firkas)</u>	Nellikuppam, Arasur, Thirunavallur, Kalamarudur, Chithalinga madam, Panruti, Manjakuppam, Cuddalore, Vallavanur, Kandamangalam
<u>Tertiary Sandstone (3 firkas)</u>	Thiruvandipuram, Kadampullur, Marungur

3.1.2.2. Aquifer Unit II (B2): Cuddalore sandstone:

Cuddalore formations comprises of argillaceous sandstone, pebble bearing sandstone, ferruginous sandstone, grits and clay beds and are whitish, pinkish, reddish in colour which are friable in nature. The sands and sandstones of Cuddalore formations of Mio-Pliocene age comprise of fine to very coarse grained and are sub-angular to sub-round in shape, occasionally with rounded pebbles of quartz with diameters even upto 3 cm. The Cuddalore sandstones occur beneath the alluvium formation and in place where alluvium formations are absent they are exposed on the surface. Laterite occurs as cap rock in the central and northern portion of the study area. The Cuddalore sandstone formation of the area forms phreatic and upper confined aquifers separated by impermeable clay layer. The clay layers separating these two aquifers are discontinuous at many places. The depth of occurrence of aquifer unit II is between 10 and 55m bgl with thickness varying from 10 to >300 m. The thickness is less in the western portion and gradually increases towards east. Clay occurs as intercalations within the sandstones at some locations. The groundwater abstractions from the aquifer is by shallow tubewells, depth ranges from 40 to 100 mbgl and are energized by electric submersible pumps which are mainly used for irrigation and industrial purposes having EC range between 500 and 1000 microseimens/cm. The piezometric level of the confined aquifer ranges between 15 and -10 m with respect to mean sea level (msl) having yield between 18 and 72 lps with an average of 20 to 36 lps (**Figure 17**). The major source of recharge to the aquifer is rainfall and leakage from unconfined aquifer. The transmissivity and storativity ranges between 138 and 3162 m²/day and between 1.2×10^{-3} and 4.1×10^{-4} respectively. The hydraulic conductivity of the Aquifer unit-II ranges from 40 – 60 m/day.

3.1.2.3. Aquifer Unit III (B3-Eocene sandstone)

The Eocene formations composed of sandstones, which are made up of fine to coarse grained sand and pale grey in colour with occasional clay intercalations. Similar to the Cuddalore sandstones, Eocene sandstones are also friable in nature. They were shallow in the central part and deeper in the eastern part towards the sea.

The Cuddalore formations and Eocene formations are separated by clay intercalated with lignite/Carbonaceous clay layer. The Eocene sandstone formation forms aquifer and are further divided into two aquifer units viz. Aquifer Unit III (B3) and Aquifer Unit IV (B4). Both the aquifer units are confined in nature. Aquifer Unit III (B3) is composed of sandstones of Eocene age and occurs at the depth of 110m bgl at western part and at 135 m bgl near the coast with thickness varying from 80 to 100 m. The groundwater in this aquifer unit is abstracted sparsely for irrigation activity. Since last decade, tubewells have been constructed by farmers to tap groundwater from this aquifer for irrigation activity. The piezometric level of the Aquifer unit-III ranges between -15 and - 35 m with respect to mean sea level. This aquifer unit is highly potential and its yield varies from 65 to 85 m³/hr. The groundwater quality of this aquifer is good and fit for drinking, domestic, agriculture and irrigation purpose as the EC values ranges from 200 to 1000 microseimens/cm. The transmissivity of the aquifer unit range between 378 and 3478 m²/day and the storativity ranges between 1.6×10^{-4} and 2.9×10^{-5} . The hydraulic conductivity of this aquifer ranges from 40 to 45 m/day.

3.1.2.4. Aquifer Unit IV (B4-Eocene sandstone)

Aquifer Unit IV lies below the Aquifer unit-III and separated by confining clay layer which is discontinuous in many places. The thickness of the confining clay layer varies from 20m to as high as 80 m in few locations. The Aquifer Unit-IV lies at the depth of 220 to 230 m bgl and composed of Eocene sandstones. The thickness is less in the western portion and gradually increases towards east extending more than 100 m. The groundwater abstraction from the aquifer through tubewells constructed to the depth of 220 to 350 mbgl. The Aquifer Unit-IV is highly potential and yields 55 to 85 m³/hr. The transmissivity of the aquifer unit range between 378 and 3478 m²/day and the storativity ranges between 1.6×10^{-4} and 3.5×10^{-5} . The hydraulic conductivity of this aquifer ranges from 40 to 45 m/day. Hydrogeology map of the lower Ponnaiyar aquifer system is present in **Figure 21** and salient features of the aquifer units in Sedimentary rock region of Lower Ponnaiyar Aquifer System is given in **Table 7**

Table 7. Salient features of the aquifer units in Sedimentary rock region of Lower Ponnaiyar Aquifer System

Type of Aquifer	Formation	Top of the aquifers (mbgl)	Thickness (AQ-I)/ Occurrence	Range of Yield (m ³ /h)	Sustainability (pumping hrs/day)	Aquifer parameter (Transmissivity)	Groundwater quality EC values (µs/cm)	Suitable for Drinking
Aquifer-I (B1)	Alluvium Tertiary sandstones	1.5	10 to 55 (18 to 24)	11 to 25 (15 to 18)	Monsoon : 4 - 6 & Non monsoon: 3 to 4	245 to 770	646 to 3250 (750-2250)	Yes
Aquifer-II(B2)	Tertiary (Cuddalore) /Cretaceous (Kadapperikuppam) sandstones)	10 to 55	10 - >300 (all at some places) 40-60	18-72 (30-36 m3/hr)	8-10	138 to 3162	400 to 2950 (< 750)	Yes. Except Brackisah area at pockets
Aquifer-III &IV (B 3&B4)	Sandstone (Eocene)	110-135 220-230	95 - >300 B3 (80-100) B4 (60-90)	41-174 (65-85)	8-10	378 to 3478	107 to 2050 General < 750	Yes

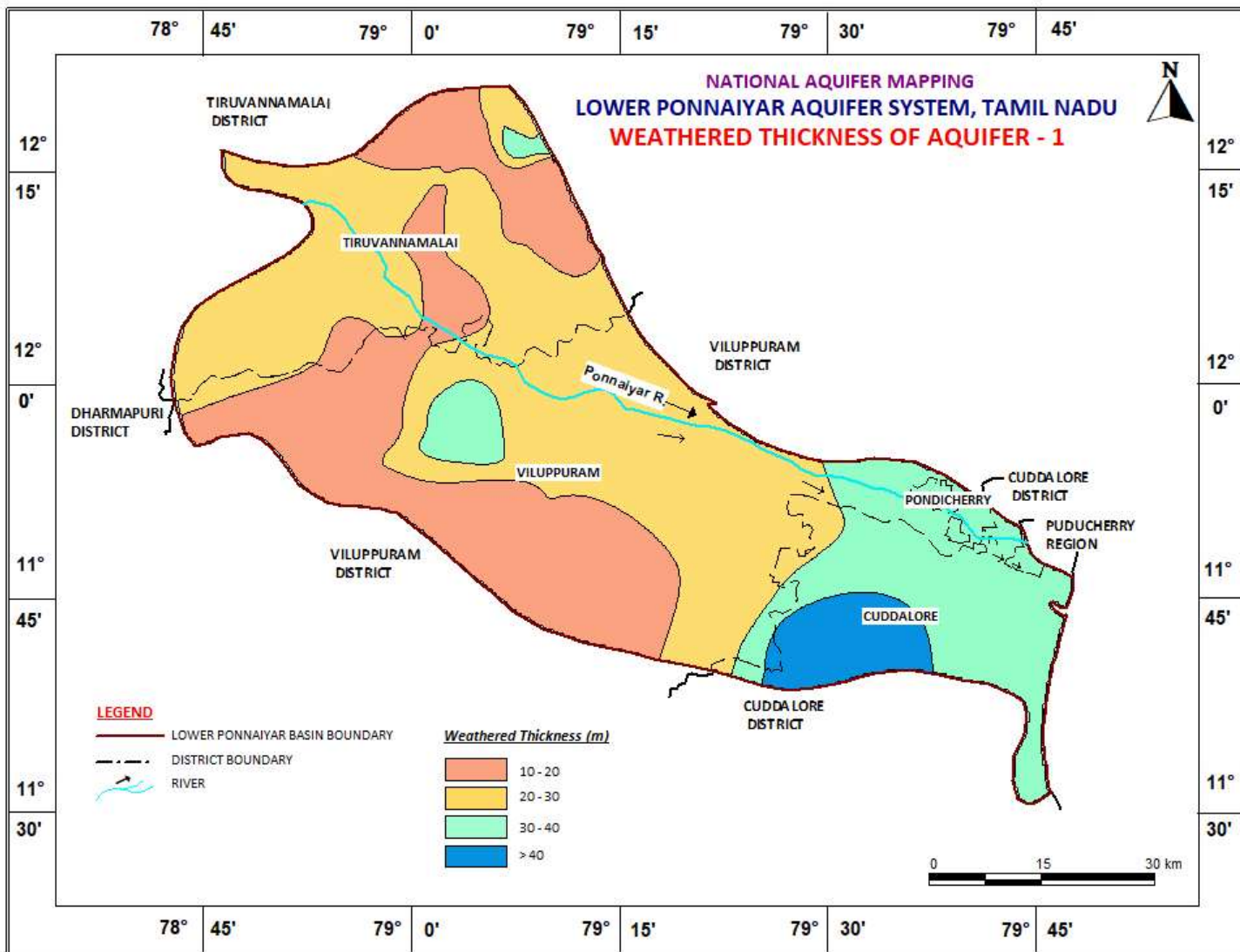


Figure 14. Weathering thickness of Aquifer-I, Lower Ponnaiyar Aquifer System

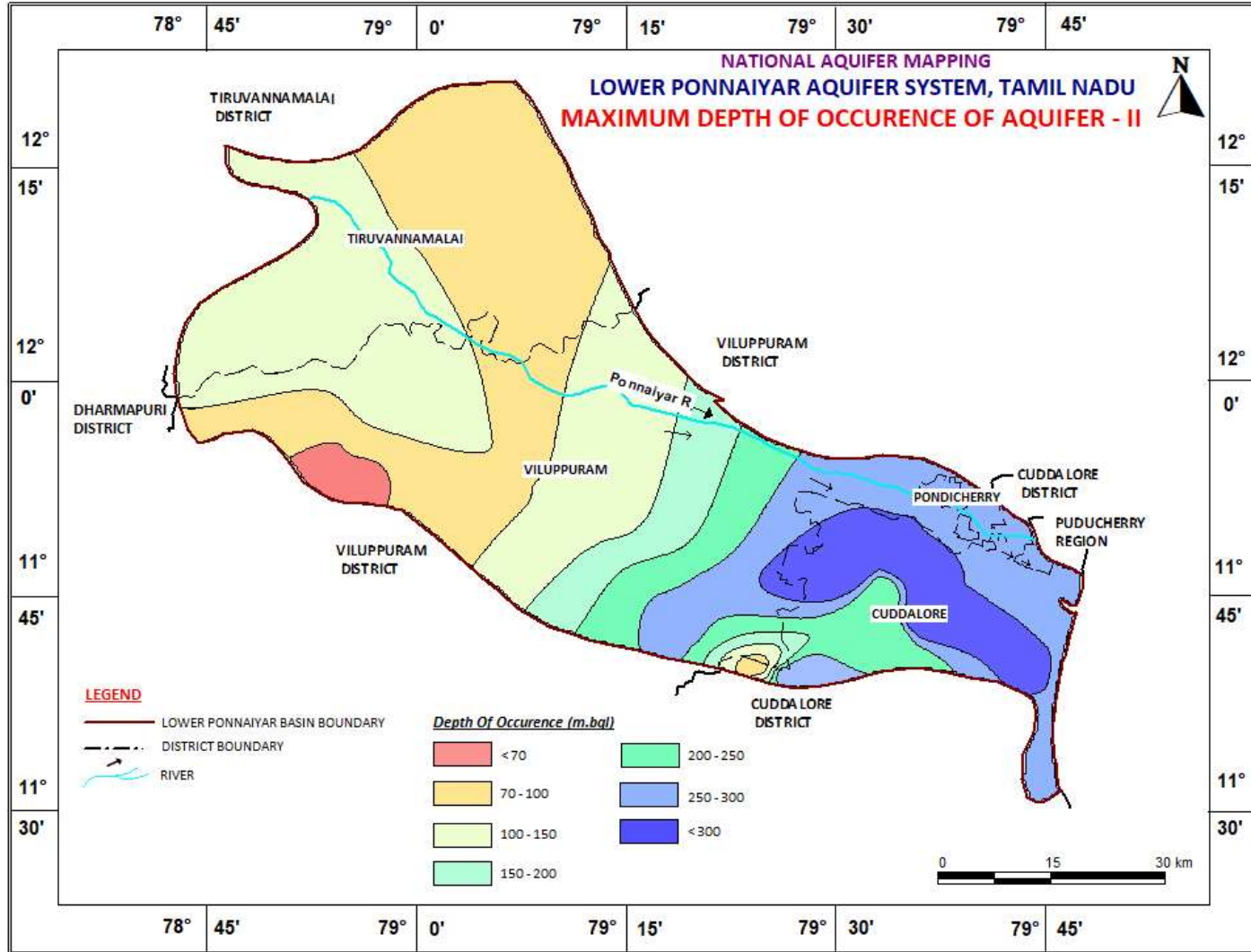


Figure 15. Depth of occurrence of Aquifer-II of Lower Ponnaiyar Aquifer System

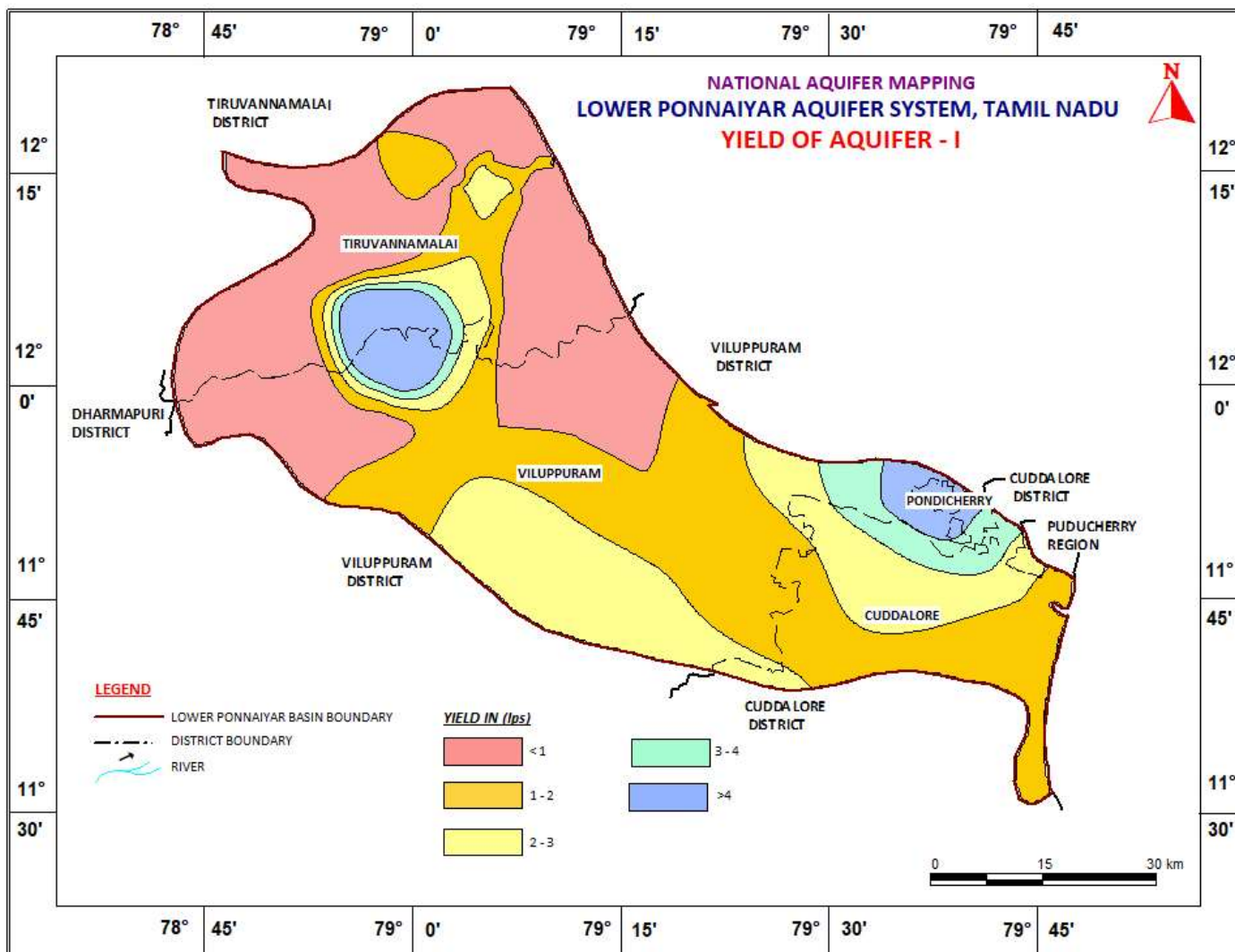


Figure 16. Yield of Aquifer-I of Lower Ponnaiyar Aquifer System

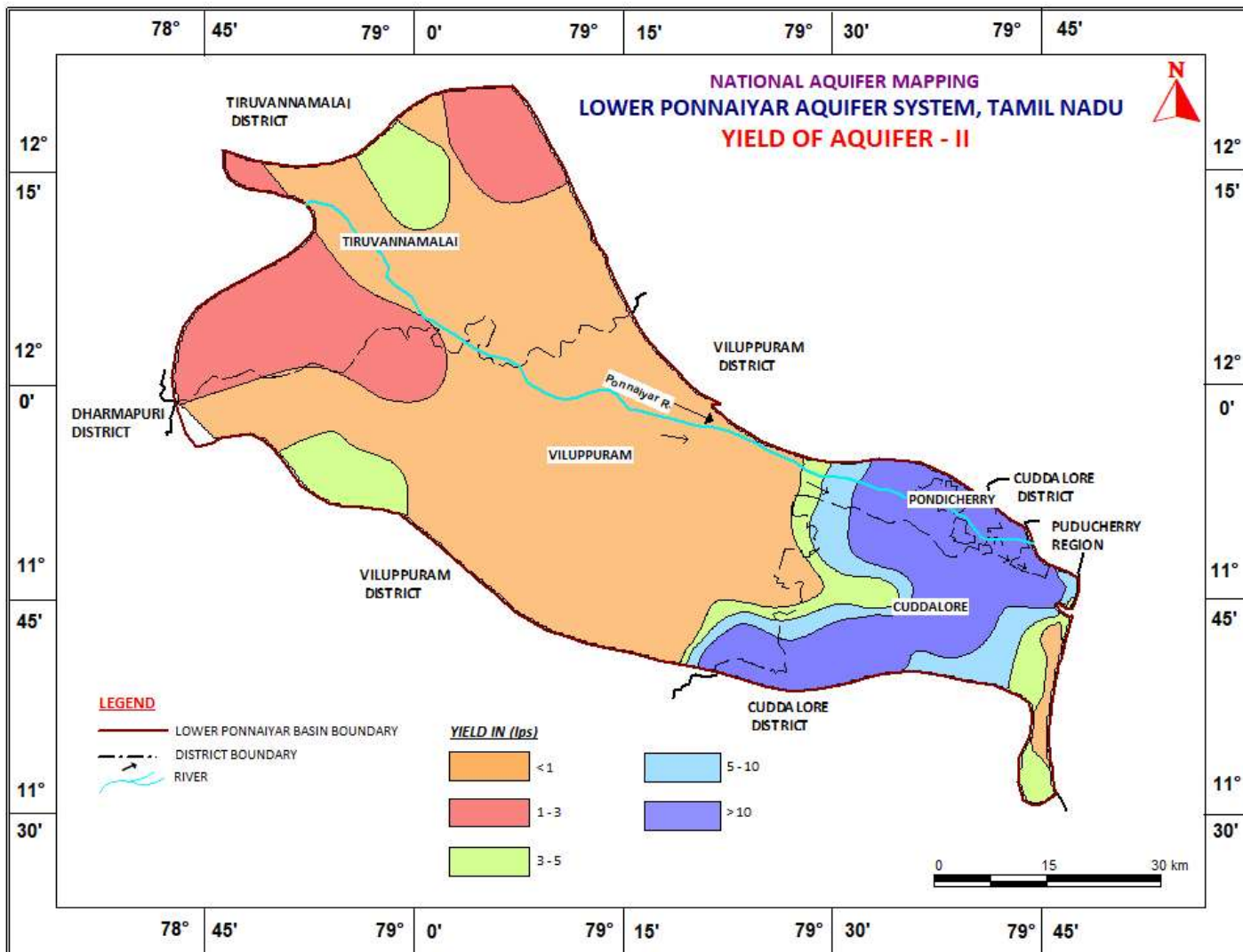


Figure 17. Yield of Aquifer-II of Lower Ponnaiyar Aquifer System

3.2. Groundwater Level

During Aquifer Mapping studies in Lower Ponnaiyar aquifer system 20 Groundwater monitoring wells which were monitoring regularly in different formations in order to know the behaviour of the groundwater regime. The water levels were monitored from May 2008 to January 2017 (four times in a year). The depth of dug well ranged from 4.00 to 38.00mbgl.

3.2.1. Depth to Water level for aquifer I (May 2016)

The water level data pertaining to the period of May 2016 (pre monsoon) was used for the preparation of depth to water level map of the basin. The depth to water level during May 2016 is varied from 0.85 to 26.83 m bgl. Major part of the basin shows water level in the range of 5 to 20mbgl. Patches recorded water level in the range of 2 to 5 m bgl and found in eastern portion of the basin. Water levels ranging 5 to 10mbgl are observed in the whole western part, central part & northern part of the basin.

3.2.2. Depth to Water level For aquifer I (Jan-2017)

To prepare the depth to water level map for the period of January 2017, based on GWMW data collected from the basin area are used. The depth to water level during Jan 2017 is varied from 0.92 to 9.4 mbgl. Water level in the range of 2 to 5 m bgl found in eastern portion of the basin. Water levels ranging 5 to 10mbgl are observed in the rest of the region.

3.2.3. Decadal Water Level Scenario of the aquifer system

Decadal water level scenario maps are prepared for pre-monsoon and post-monsoon period. The analysis shows that during the Pre monsoon period (May 2007- May 2016) 49% of the well i.e. 29 out of 59 shows water level between 5 and 10 m bgl, 41% of the wells shows water level 2 to 5, 8% of the wells shows water level in the range of 10 to 20 mbgl. Whereas during the post monsoon period (Jan 2008 – Jan 2017) in 58% of the wells shows water level are shallow i.e. 2 to 5 m bgl, and 12 % of well shows very shallow water level less than 2 m bgl. In 30 % of the well shows water level in the range of 5 to 10 m bgl. The study shows that the basin is responding to the rainfall and recharging the aquifers. Depth to water level (Aquifer-I) – decadal average- Premonsoon of the Lower Ponnaiyar Aquifer System presented as **Figure 19**. Depth to water level (Aquifer-I) – decadal average- Postmonsoon of the lower Ponnaiyar aquifer system presented as **Figure 20**.

3.3 Pumping Tests

The yields of the wells in the study area are widely varied. Many of Dug wells in the area have less than one meter water Column during most part of the year. About 80 to 95 % of wells located in the western and central parts get dry during summers months. In hard rock area of Tiruvannamalai and Villupuram districts most of the months dug wells are used as storage tanks to collect water from the bore wells drilled nearby. This stored water is used for irrigation. The wells located in favourable hydrogeological settings like shear zones, topographic lows, river alluvium etc., are able to sustain at a rate of 100 lpm for 2 to 3 hrs of pumping. The yield of large diameter wells tapping the weathered mantle of crystalline rocks ranges from 20 to 50 m³/day for a drawdown of 2 to 3 m and are able to sustain 1 to 3 hours of pumping. The specific capacity of the porous weathered formation ranges from 7 to 35 lpm/m/dd. The transmissivity values of the weathered formation computed from pumping tests ranges from 5 to 20 m² /day and storativity ranges from 4.37x10⁻⁴ to 7.89x10⁻³. At a very few places the weathered mantle extends down to 19 m bgl.

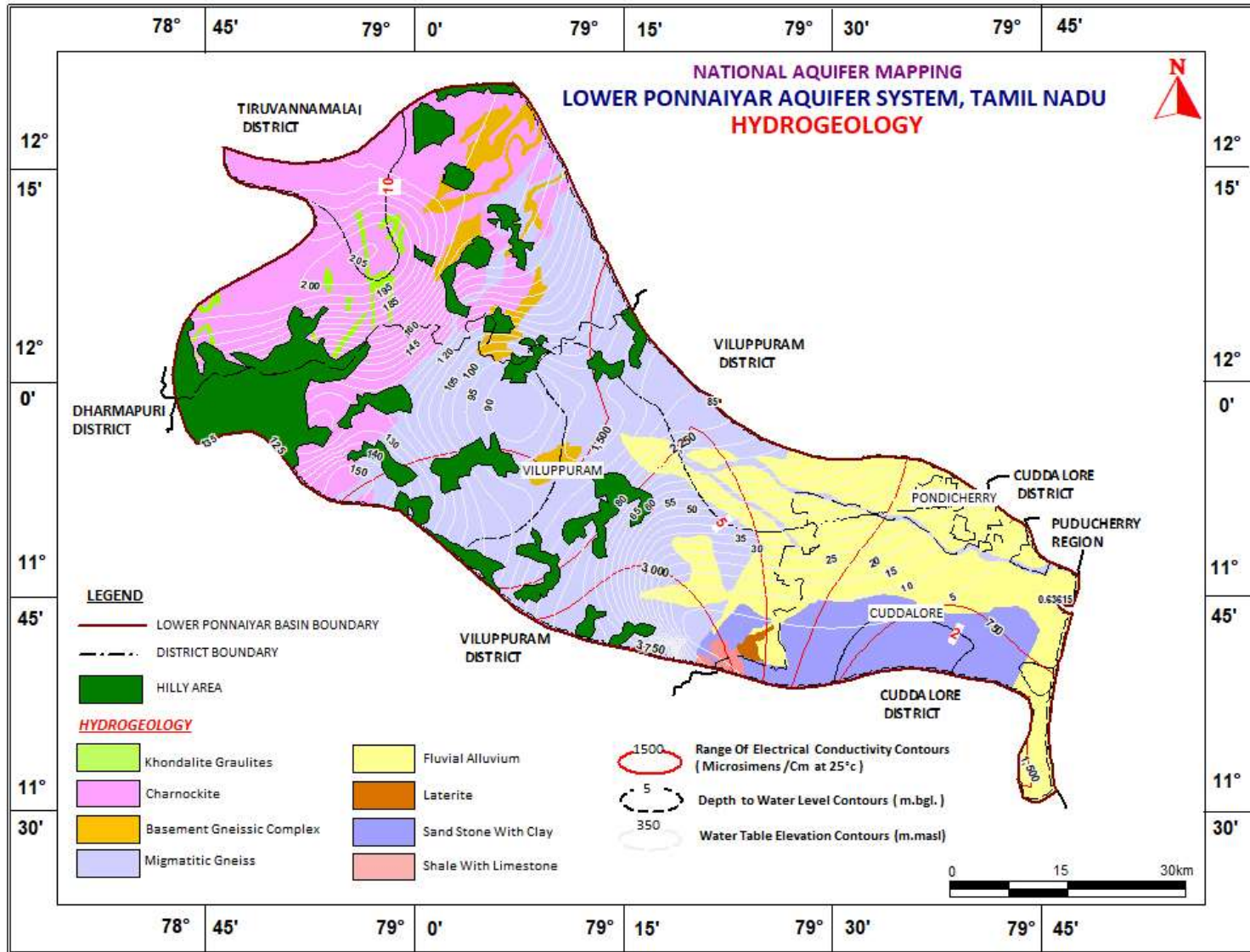


Figure 18. Hydrogeology map of the lower Ponnaiyar aquifer system

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

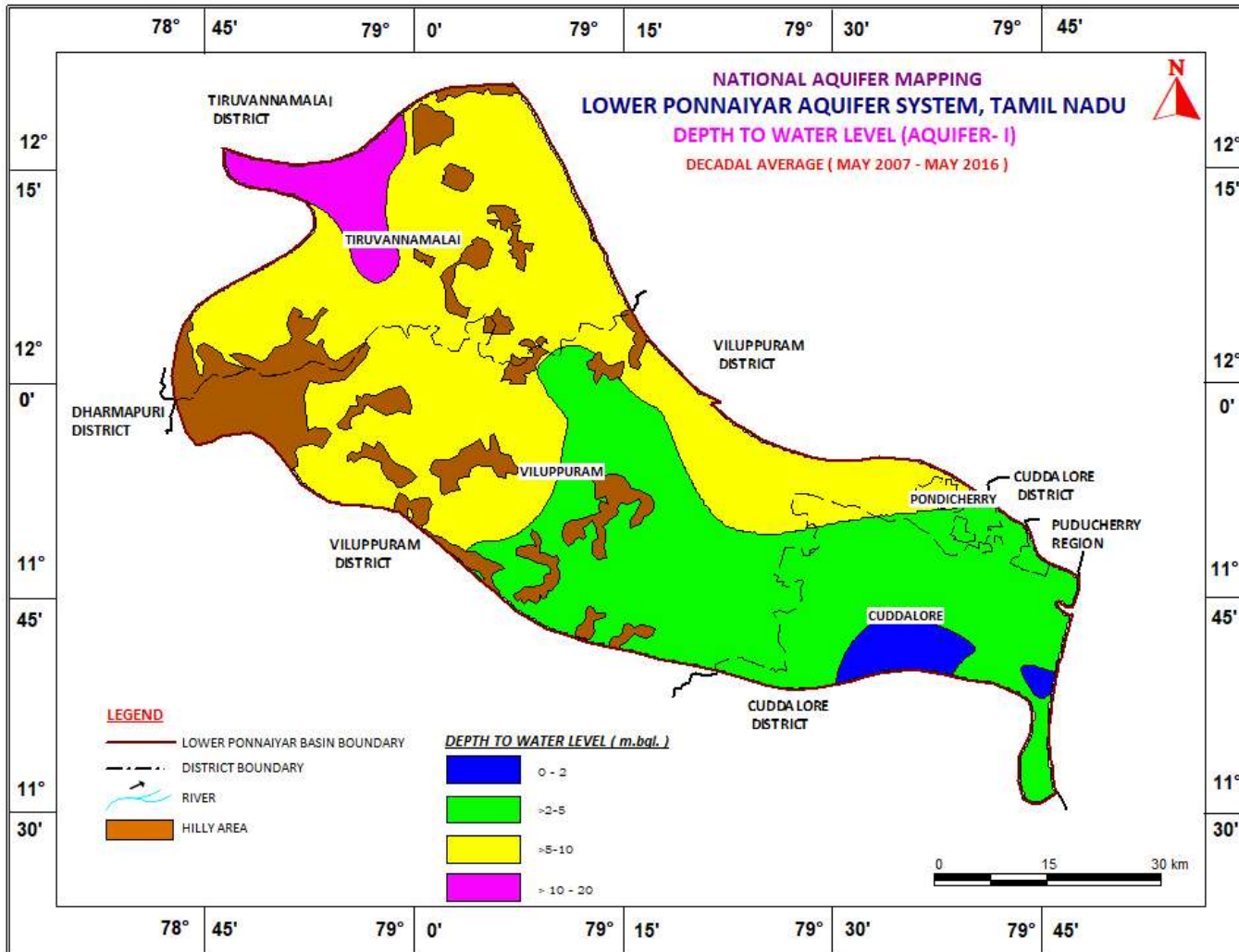


Figure 19. Depth to water level (Aquifer-I) – decadal average- Premonsoon of the lower Ponnaiyar aquifer system

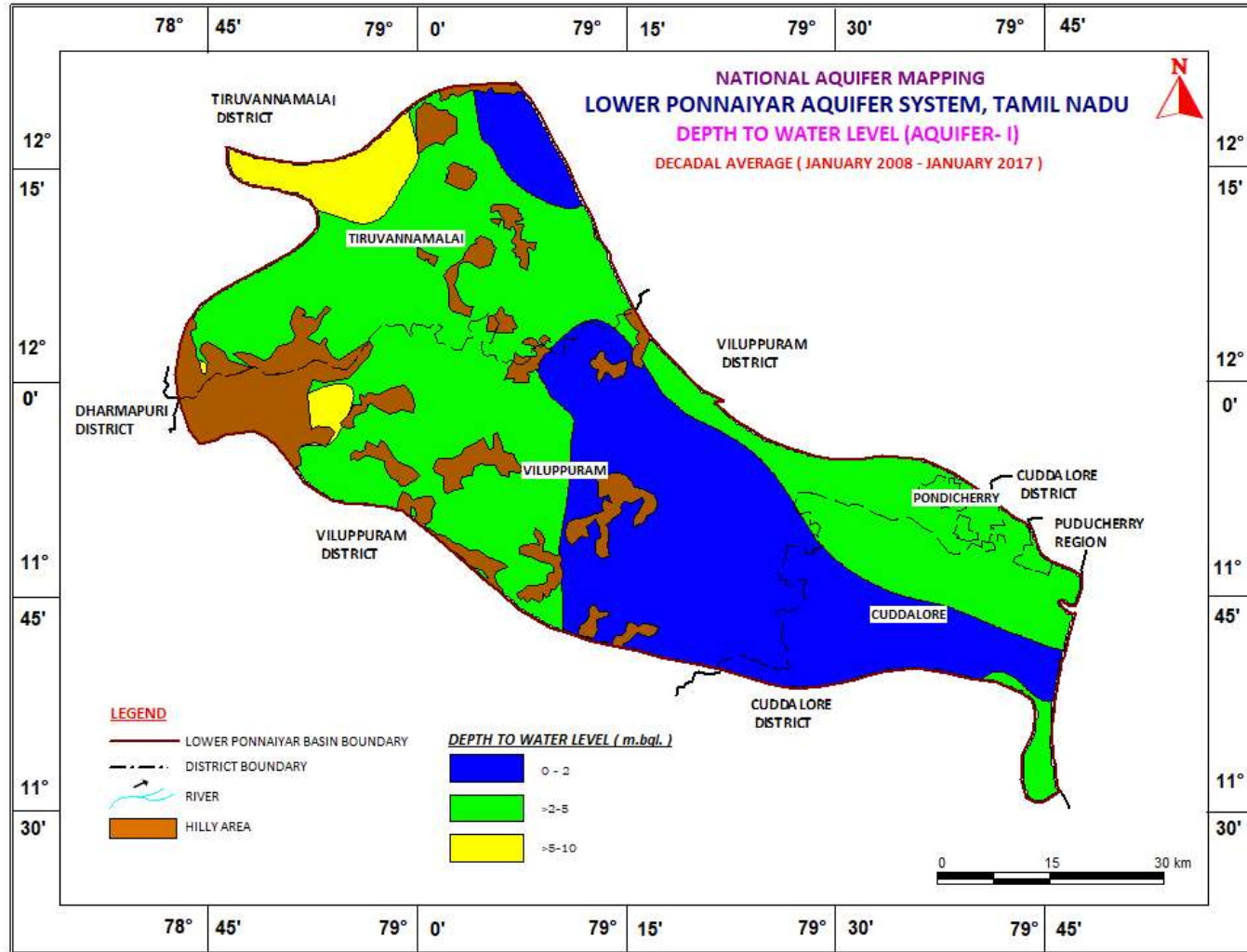


Figure 20. Depth to water level (Aquifer-I) decadal average - Postmonsoon of the lower Ponnaiyar aquifer system

3.4 Groundwater quality

3.4.1. Electrical Conductivity

Electrical conductivity is the indicator of the total mineral content of water and hence it indicates the total dissolved solids (TDS) present in water. TDS of water determines its usefulness to various purposes. Generally water having TDS <500 mg/L is good for drinking and other domestic uses. However, in the absence of alternative sources TDS up to 2000 mg/L may be used for drinking purposes. The distribution of EC in different aquifers are in **Figure 21 & Table 8**. In phreatic aquifer groundwater quality is fresh, about 10% of the samples shows EC value less than 750 $\mu\text{s/cm}$ at 25°C. In about 76% of the groundwater samples shows moderately fresh in EC and it varies between 751 and 2250 $\mu\text{s/cm}$ at 25° C, only 5% of Groundwater showing EC between 2251 and 3000 $\mu\text{s/cm}$ at 25° C indicating that the groundwater is slightly mineralized and about 9% of groundwater wells the EC is more than 3000 $\mu\text{s/cm}$ at 25°C indicating that the groundwater is highly mineralized. The fractured zone groundwater quality is fresh in about 18%, as indicated by the EC value which is less than 750 $\mu\text{s/cm}$ at 25°C. In about 75% of the groundwater, the EC varies between 751 and 2250 $\mu\text{s/cm}$ at 25° C indicating that groundwater is moderately fresh and 10% of groundwater is between 2251 and 3000 $\mu\text{s/cm}$ at 25° C indicating that the groundwater is slightly mineralized. Only in 2% of groundwater samples the EC is more than 3000 $\mu\text{s/cm}$ at 25°C, which occupies the coastal part of the study area. In this area sea water intrusion threat exist due to the over exploitation of groundwater resources.

Table 8. Distribution of EC in the aquifer unit-I.

Ec (us/cm)	Nos. of sample	Percentage of sample (%)
0-750	08	09
>750-2250	62	76
>2250-3000	06	05
> 3000	09	10

3.4.2. Chloride

About 71% of the groundwater samples of phreatic aquifer has the chloride concentration 0 to 250 mg/l and about 28% of groundwater sample has the chloride concentration 250 to 1000 mg/l. The distribution of chloride concentration in Aquifer-I is presented in **Figure 22 and Table 9**.

Table 9. Distribution of chloride concentration in aquifer

Cl (mg/l)	Nos. of samples	Percentage of sample
0 -250	59	71
>250-1000	22	28

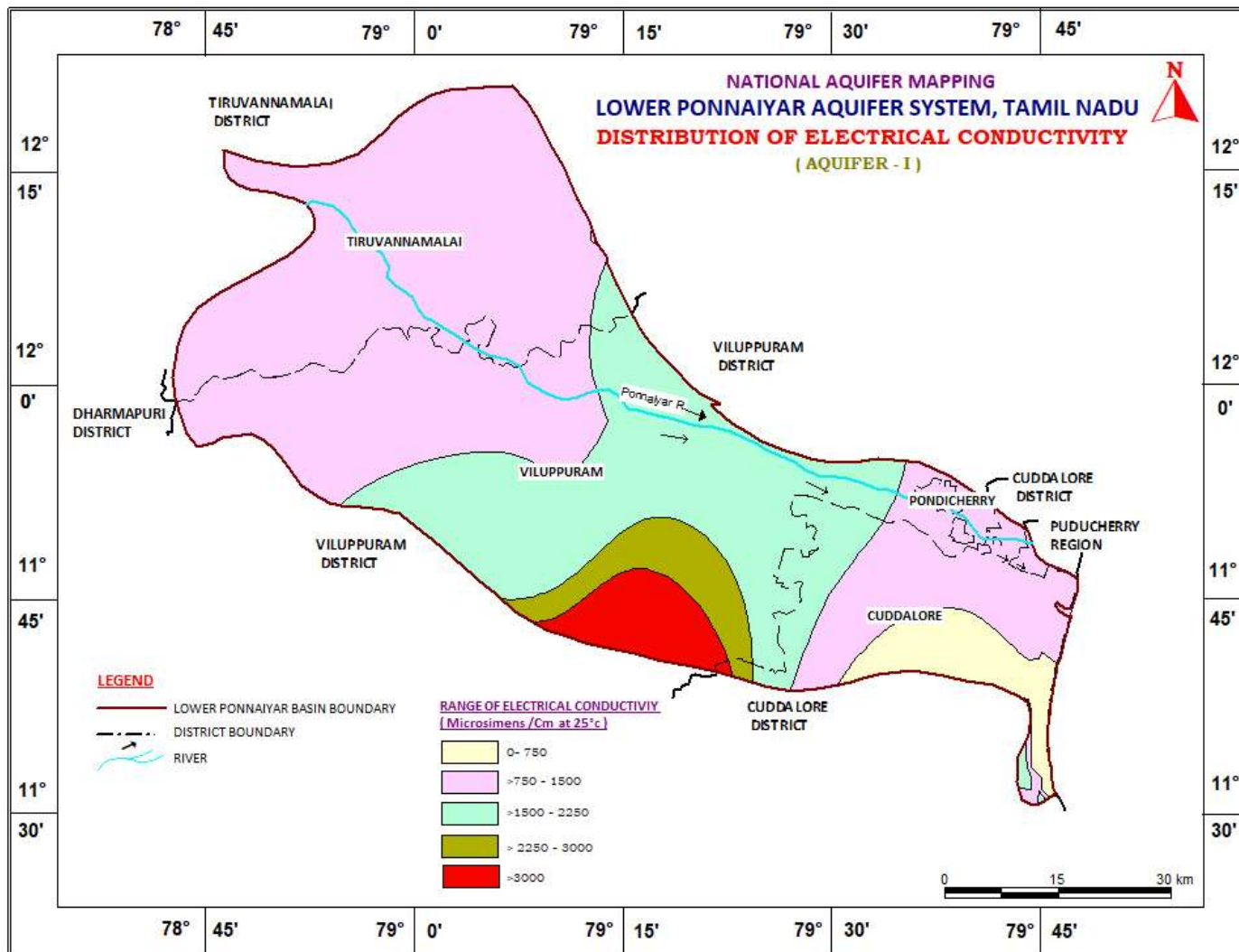


Figure 21. Distribution of EC in Aquifer I of the Lower Ponnaiyar Aquifer system.

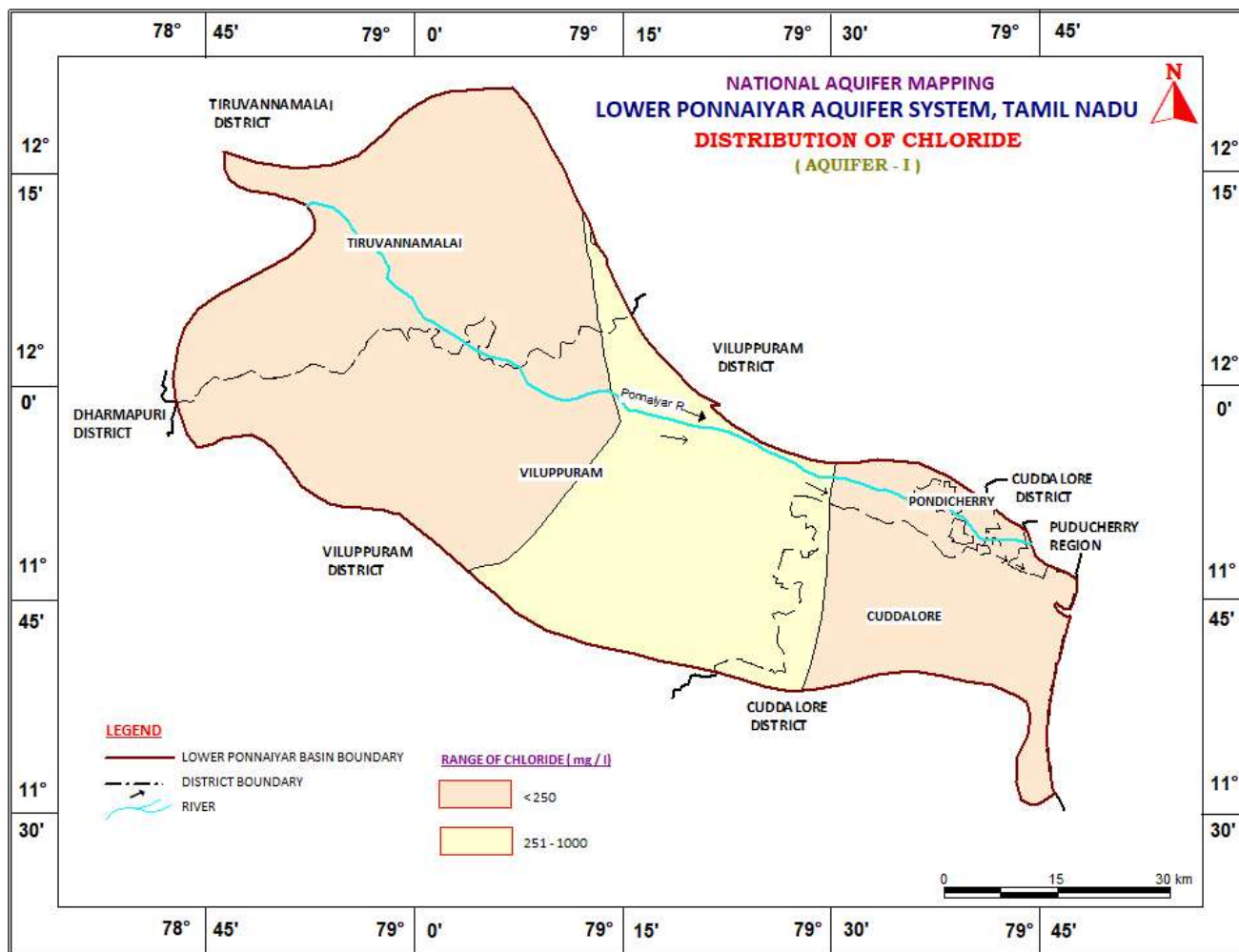


Figure 22. Distribution of Chloride in Aquifer-I of the Lower Ponnaiyar Aquifer system

3.5. Aquifer Maps

3.5.1. 2D & 3D models showing Aquifer Disposition

Aquifer Disposition (Vertical & Lateral) is generated based on the inputs of data collected through geological, geophysical, hydrogeological, and hydrochemical studies. In particular the aquifer disposition and aquifer characterization has been brought mainly by analyzing the data collected from different groundwater agencies such as 146 Nos. of lithologs, 10Nos. of electrical Logs, 185 Nos. of VES data, water level data of 85 wells, 20 hydrograph of dugwells with long term trend, 9 piezometric head data of the piezometers tapping different aquifer units, 85 hydrochemical data and field inputs carried out during the study period. 2D & 3D aquifer disposition models of the aquifer system have been deciphered by using ROCKWORKS software and generate numbers of 2D cross section along different directions of the Lower Ponnaiyar aquifer system. All such 2D cross sections were verified and the model was calibrated to bring out the 3D aquifer disposition of the aquifer system. The type cross sections generated in different direction of the aquifer system is given in **Figures 23, 24, 25** & the 3D aquifer disposition is show in **Figure 26**.

4.0. GROUNDWATER RESOURCES

The dynamic groundwater resources have been estimated as on 2013 based on the methodology suggested by Ground Water Estimation Committee (GEC) 1997.

The groundwater recharge is calculated both by groundwater fluctuation-specific yield method and by rainfall infiltration method. The annual replenishable groundwater recharge is the summation of four components viz.,

- i) Monsoon recharge due to rainfall
- ii) Monsoon recharge from other sources
- iii) Non-monsoon recharge due to rainfall
- iv) Non-monsoon recharge due to other sources

Firka-wise dynamic groundwater resources have been taken from the approved resources estimation done as on March 2013, jointly by State PWD of Tamil Nadu and CGWB, to arrive at the total resources available in the study basin. A total of 38 Firkas are falling in the study area.

4.1. Net Groundwater Availability (NGWA)

The net groundwater availability refers to the available annual recharge after allowing for natural discharge in the monsoon season in terms of base flow and subsurface inflow/outflow. This annual groundwater potential includes the existing groundwater withdrawal, natural discharge due to base flow and subsurface inflow/ outflow in the monsoon season and availability for future development. As the groundwater development progresses the natural discharge gets suitably modified and comes down to negligible quantities due to interception by different groundwater structures. Hence, natural discharges in the monsoon season may not be considered and the total annual groundwater recharge may be taken as net groundwater availability. The net groundwater availability of the basin for the year 2013 is arrived at 1,18,443 Ham, out of which the availability for 21 firkas of Villupuram district is 61,316 ham, 11 firkas of Tiruvannamalai is 26038 ham and 6 firkas of Cuddalore district is 24214 (**Figure 28**).

Lower Ponnaiyar Aquifer System 2D Aquifer Disposition

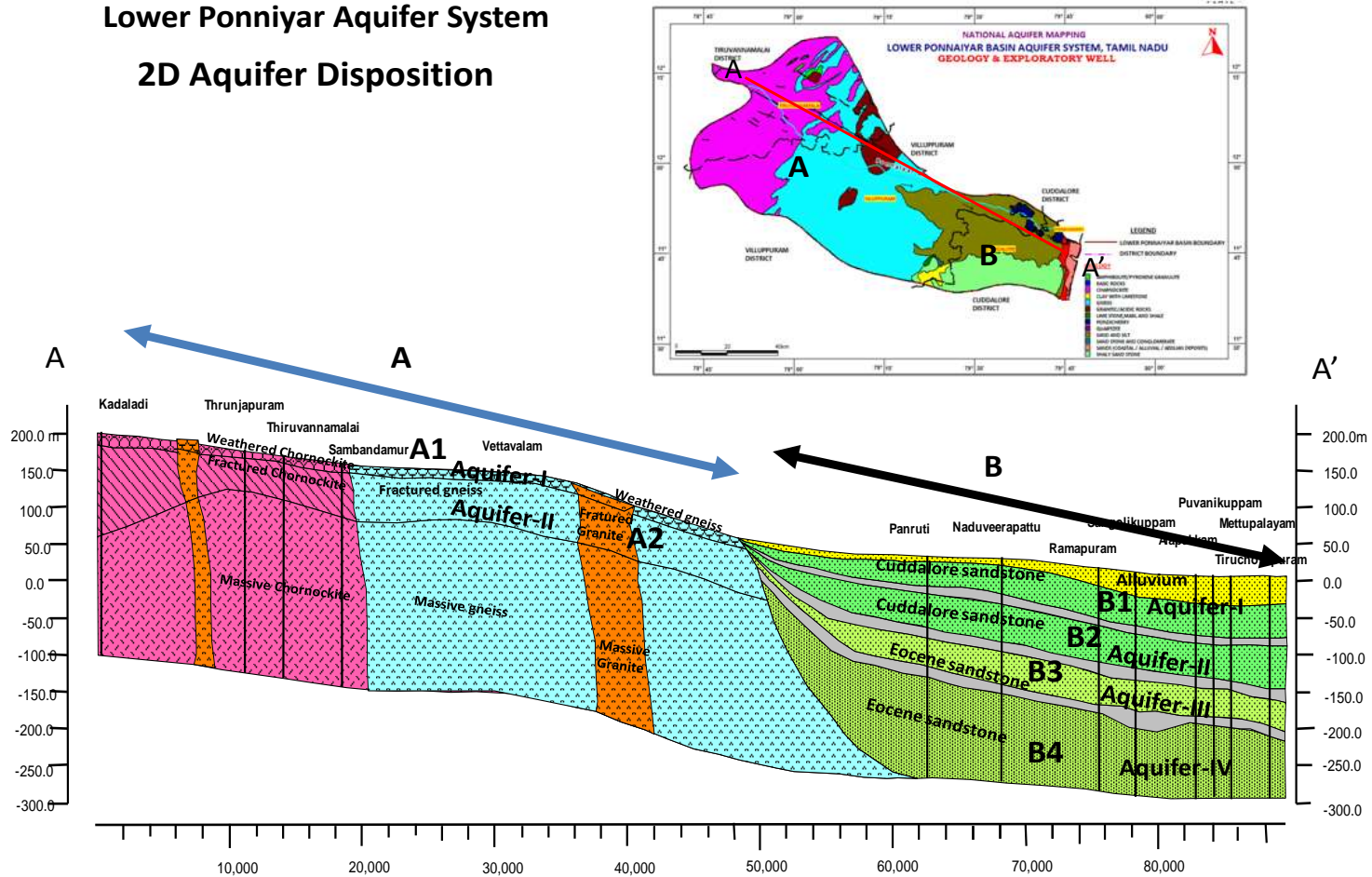


Figure 23. 2D disposition of the Lower Ponnaiyar Aquifer system along NW-SE Direction.

**Lower Ponnaiyar Aquifer System
2D Aquifer Disposition**

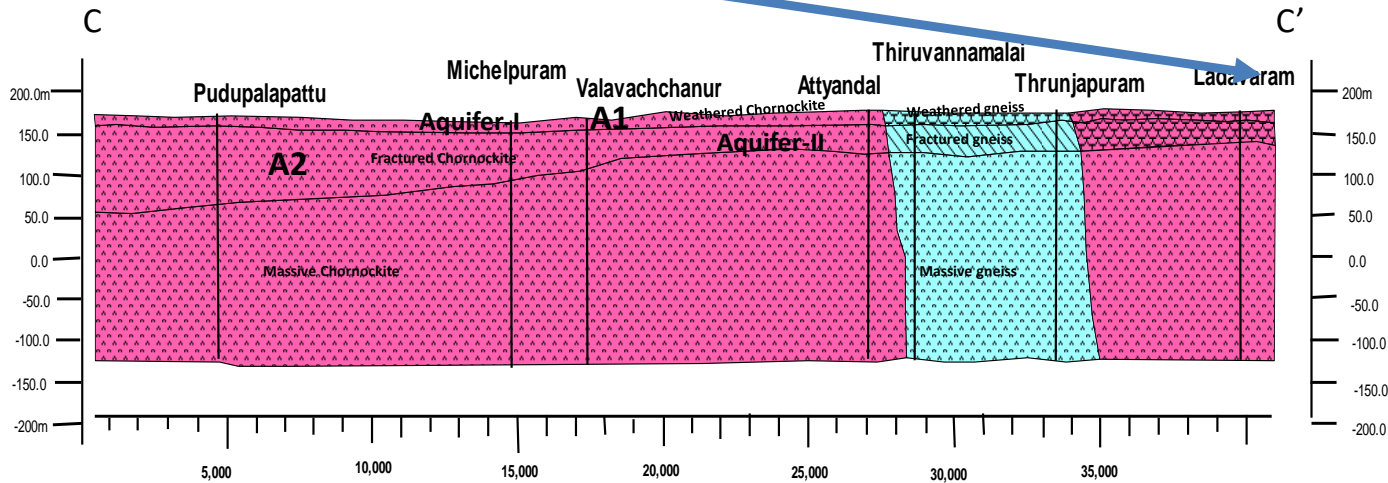
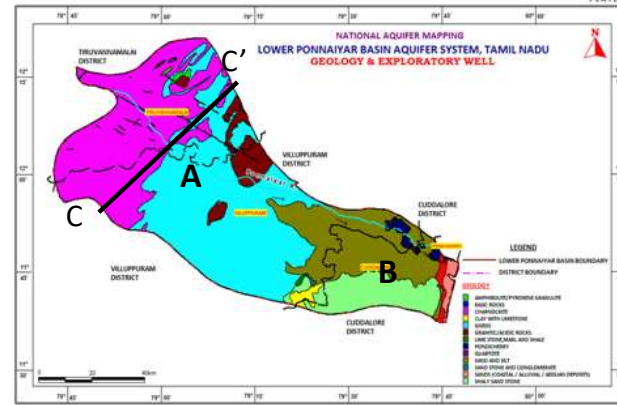


Figure 24. 2D disposition of aquifer system along northeast –West direction.

Lower Ponnaiyar Aquifer System 2D Aquifer Disposition

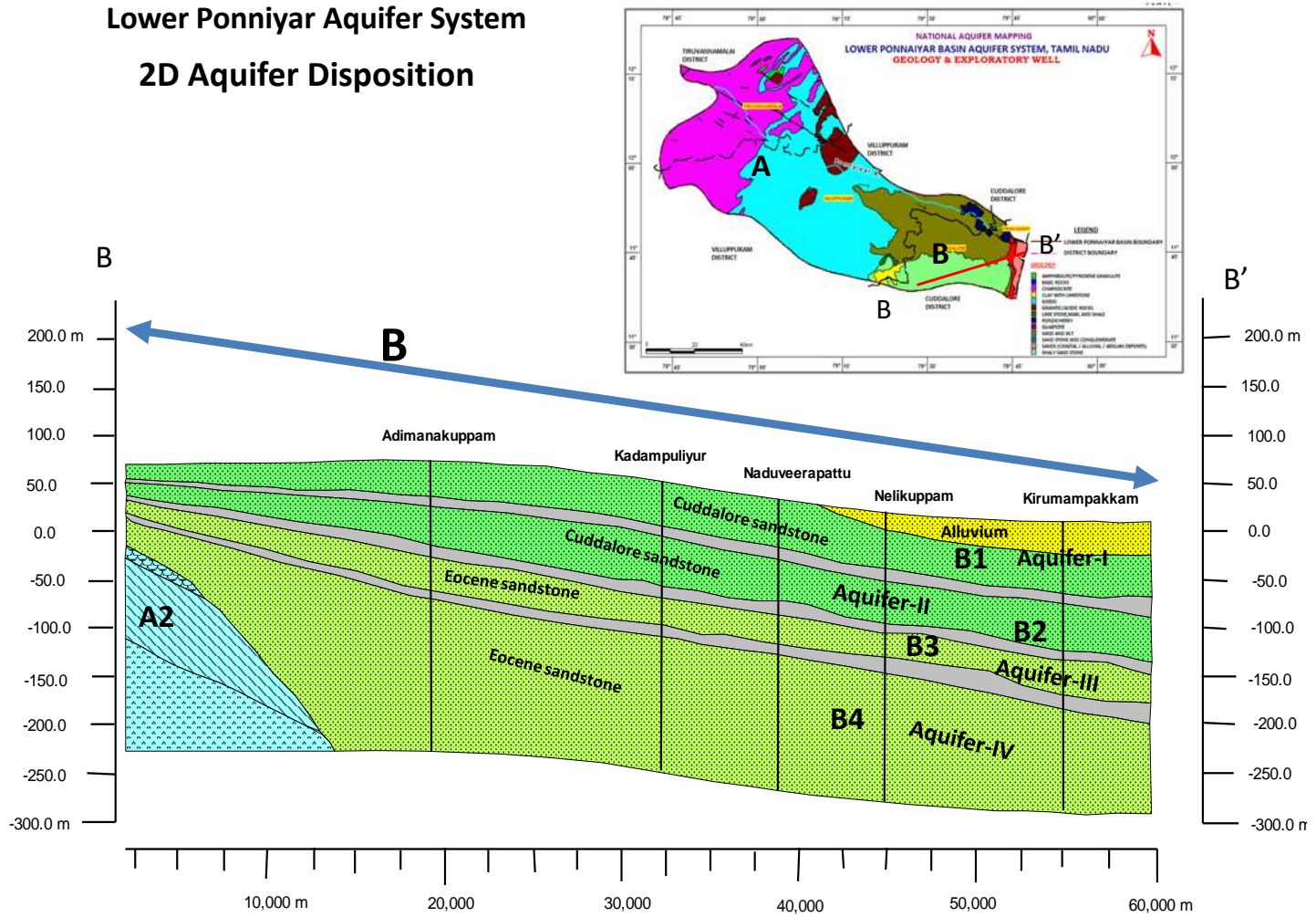


Figure 25. 2D disposition of aquifer system along South to East direction in the sedimentary area.

Lower Ponnaiyar Aquifer System 3D Aquifer Disposition

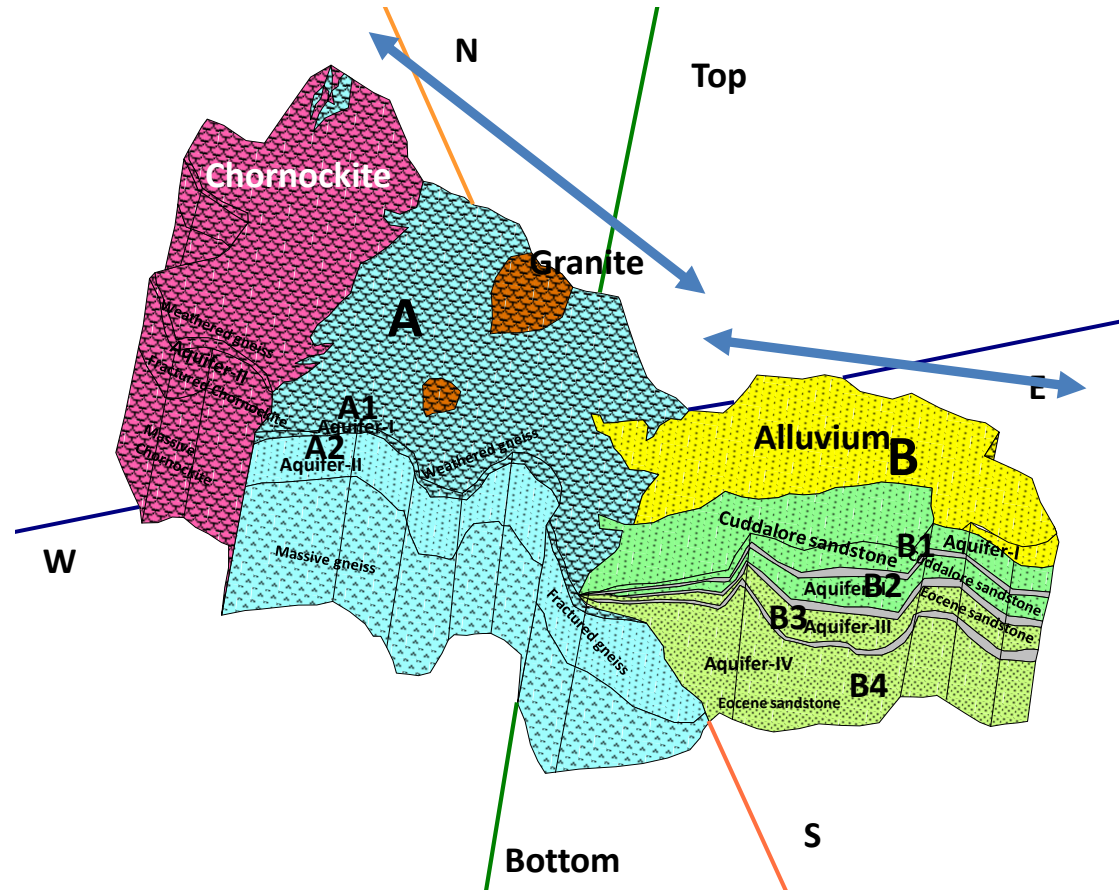


Figure 26. 3D disposition of the Lower Ponnaiyar aquifer system.

4.2. Groundwater Draft

The gross groundwater draft has been assessed by using Unit draft method for irrigation draft component and by adopting formula suggested by GEC 1997 for domestic and industrial draft components. The existing groundwater draft of the basin for the year 2013 is arrived at 96,227 Ham, out of which the groundwater draft for 21 firkas of Villupuram district is 48646 ham, 11 firkas of Tiruvannamalai is 26579 ham and 6 firkas of Cuddalore district is 21002. Distribution of groundwater abstraction structures and groundwater draft of Lower Ponnaiyar aquifer system is presented in **Figure 27**. The total gross groundwater draft of the aquifer system is 96227 ham. against the net groundwater availability of 118443 ham and is presented as **Figure 28**.

4.3. Stage of Development and Categorization:

The stage of development is defined by stage of groundwater development (%)

$$= (\text{Existing groundwater draft} / \text{Net Groundwater availability}) \times 100$$

The stage of groundwater development is calculated for all the 38 firkas of the basin. The Categorization has been done by considering the two factors as suggested by GEC 97, viz.,

- i) Stage of Development
- ii) Long term trend of pre and post monsoon water levels.

The following FOUR categories have been suggested by GEC-97 based on the above two factors.

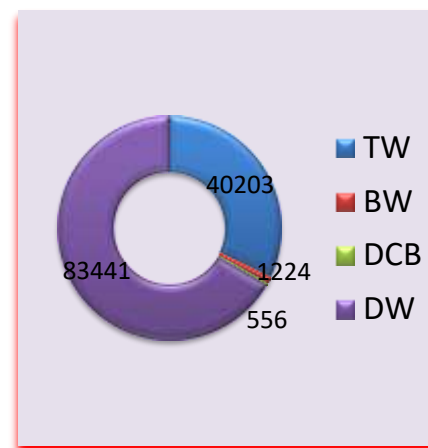
a) Safe, b) Semi-critical, c) Critical and d) Over-exploited

Based on the above categorization 17 out of the 38 firkas of the Lower Ponnaiyar aquifer system falls under over exploited and critical categories. In Villupuram district 7 out of 21 firkas are over exploited, 1 firka falls in Critical Category, 6 firkas falls in Semi-critical Category and 7 firkas falls in Safe category. In Tiruvannamalai district 5 out of 11 firkas falls under Over-exploited category, 3 firkas falls in Critical Category and 3 firkas falls in safe category. In Cuddalore district 1 firkas falls in Over exploited Category, 2 firkas in Semi-Critical category and 3 Firkas falls in Safe Category (**Figure 29**). The total stage of development of Lower Ponnaiyar aquifer system is 86%. Conceptualization of aquifer model of Lower Ponnaiyar aquifer system is presented in **Figure 30**.

Distribution of Groundwater abstraction structures and groundwater draft of Lower Ponnaiyar Aquifer system



Distribution of GW abstraction Structures



District	Nos. o f ground water abstraction structures				total	Draft mcm
	TW	BW	DCB	DW		
CUD	14337	154	474	1462	16427	379.02
TVM	1935	4361	7812	38454	52562	404.08
VPM	27524	3442	5299	44118	80383	1048.1
Total	43796	7957	13585	84034	149372	1831.2

Total annual Draft (mcm)
Aquifer A1 & B1 : 1174.8
Aquifer A2 & B2-4 : 656.4

Total (MCM) : 1831 .2

Figure 27. Distribution of groundwater abstraction structures and groundwater draft of Lower Ponnaiyar aquifer system

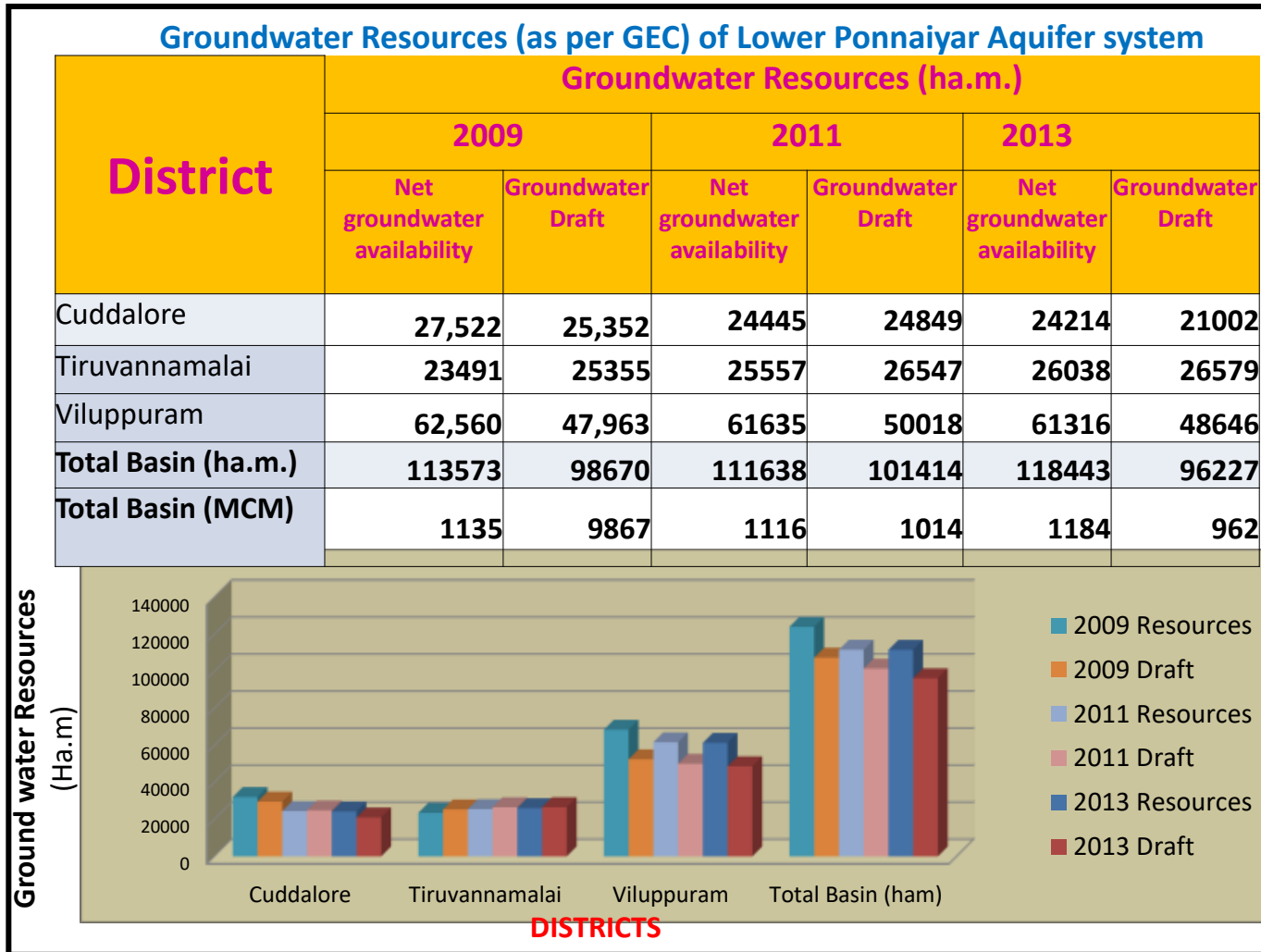


Figure 28. Net groundwater availability and draft of Lower Ponnaiyar Aquifer system

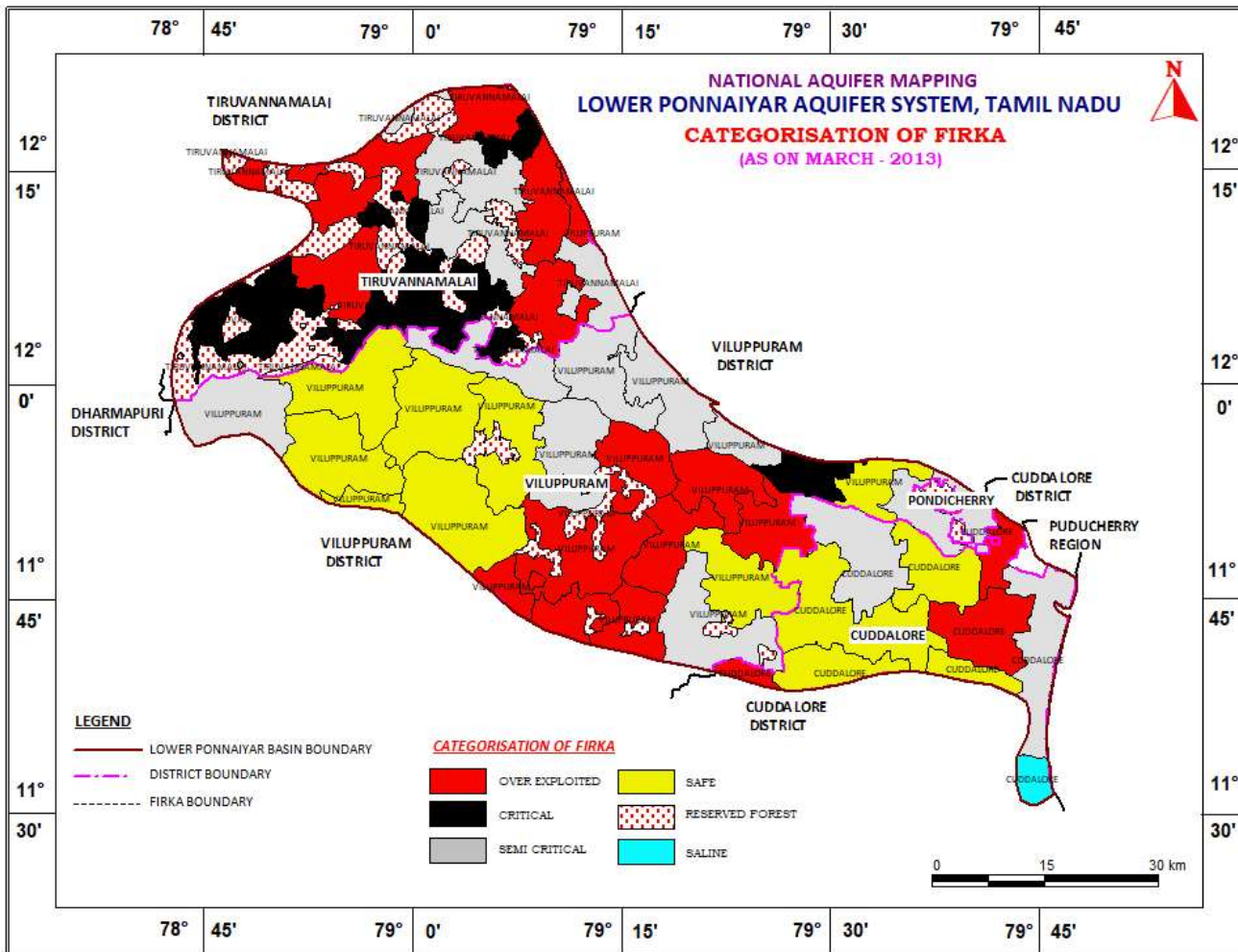


Figure 29. Categorisation of firka – Lower Ponnaiyar aquifer system

Conceptualisation of lower Ponnaiyar Aquifer system

Aquifer-I (Alluvium, Laterite, Sandstone and Weathered Crystalline rocks)

Recharge : 1,341 MCM



In Storage	Aquifer - 1	Aquifer-II
Alluvium (B)	138 MCM	0 NA
Tertiary (B)	210 MCM	761 MCM
Gneiss / Charnockite (A)	0 MCM	109 MCM
Total	390 MCM	870 MCM

Total annual Draft (mcm)

Aquifer A1 & B1 : 1174.8

Aquifer A2 & B2-4 : 656.4

Total (MCM) : 1831.2

Ground Elevation : 0 to 712 m amsl

Weathered (A1)/ Alluvial Aquifer (B1): 2 to 40/ 1.5 to 58 m

Fractured (A2) /Sandstone (B2 to 4) : 195 m /> 300m

(3 to 4 fractures- hard rocks)

Surplus runoff Available : 89 MCM

Harnessable runoff : 71 MCM

Figure 30. Conceptual model of the Lower Ponnaiyar aquifer system.

4.4. Static Groundwater Resource:

The groundwater available below the zone of water level fluctuation is called Instorage Groundwater Resource. A total quantity of 390 MCM in Aquifer unit I and 870 MCM in aquifer unit-II is available as instorage resource. The instorage in alluvium formation contributes to major portion for the aquifer unit I. **Table 10** describes the unit-wise instorage available in the Lower Ponnaiyar aquifer system.

Table 10. Static Groundwater resources of Lower Ponnaiyar aquifer system.

In Storage	Aquifer - 1	Aquifer-II
Alluvium (B)	138 MCM	0 NA
Teritary (B)	210 MCM	761 MCM
Gneiss / Charnockite (A)	0 MCM	109 MCM
Total	390 MCM	870 MCM

5.0. GROUNDWATER RELATED ISSUES

Groundwater is extensively utilized for irrigation in the entire basin area for the past two decades, especially in the 13 over-exploited firkas out of the 38 firkas of the study area. Anthropogenic contamination in the basin is restricted to the urbanized centers of Cuddalore area.

5.1. Geographical distribution & Resource Availability

In the study area most of the part is reeling under over development. Over all out of 38 firkas of the study areas 13 firkas are over exploited and 4 firkas is Critical. These areas occupy the Northern, Northwestern, Central and Eastern part of the study area. In these areas the groundwater has been extensively developed by constructing groundwater abstraction structures like dug wells, tube wells, dug cum borewells and borewells. There are about 84034 Nos. of dug wells, 43796 Nos. of tubewells, 13585 Nos. of dug cum borewells and 7957 Nos. of borewells constructed in the entire study area and are used to extract groundwater for irrigation purpose. Groundwater development in these firkas is to be restricted

Further there is ample scope for groundwater development in the 21 safe and semi-critical firkas comprising more than 50% of the total area of the Lower Ponnaiyar Aquifer system which falls in Tiruvannamalai, Villupuram and Cuddalore districts.

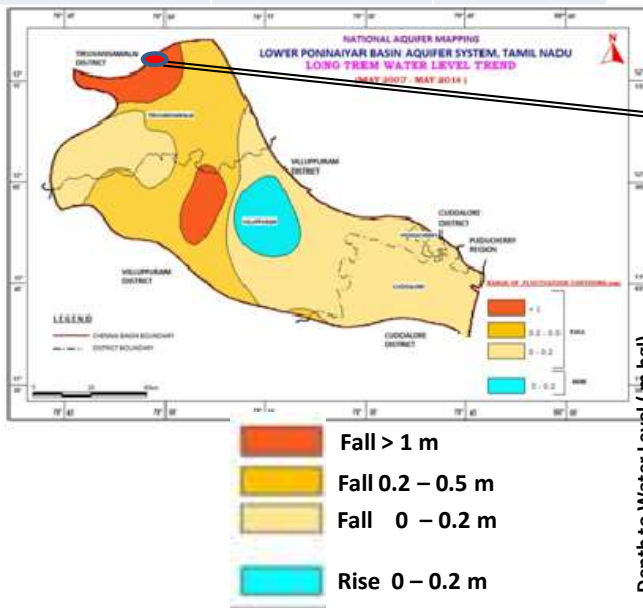
5.2. Declining Groundwater level:

In the study basin about 95% of the area shows declining trend of water level. Water level trend analysis result shows that both the pre and post monsoon periods water level trend shows declining trend. During Premonsoon, about 50 % of the area shows declining trend of 0.2 to 0.5 m/yr., 31 % shows 0-0.2 m and 13% of the area shows declining trend >0.5 m/yr. (**Figure 31**). Whereas during the post monsoon period 71% of the area shows declining trend of 0 -0.2 m/yr. and 29 % shows 0.2 to 5.0 m/yr. Long term water level trend (Premonsoon) of the lower Ponnaiyar aquifer system is presented as **Figure 32** and Long term water level trend (Postmonsoon) of the lower Ponnaiyar aquifer system is presented as **Figure 33**.

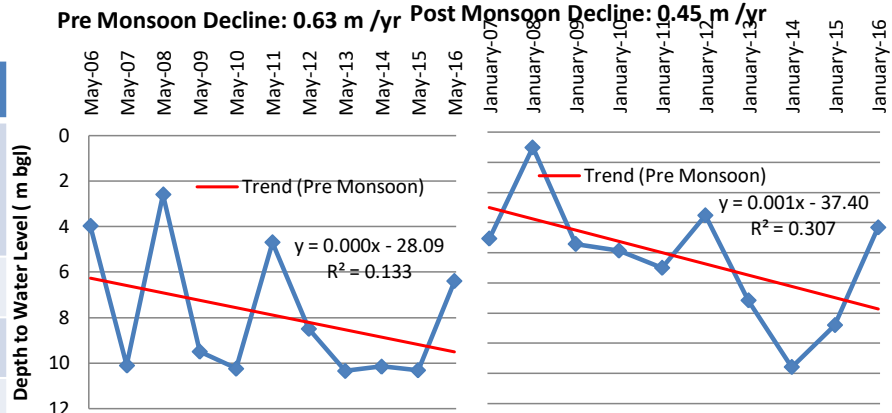
Declining Groundwater Level

95% of area showing declining trend.

Declining Trend Frequency		
Range	Pre - monsoon (%)	Post-Monsoon (%)
0-0.2 m	31	71
0.2 – 0.5	50	29
> 0.5	13	0



Mambazhapattu, Villupuram District



Maximum decline (Pachchal, Tiruvannamalai District)
Pre Monsoon- is 1.14 m/year

Post Monsoon- 0.33/year

Pachchal, Tiruvannamalai District

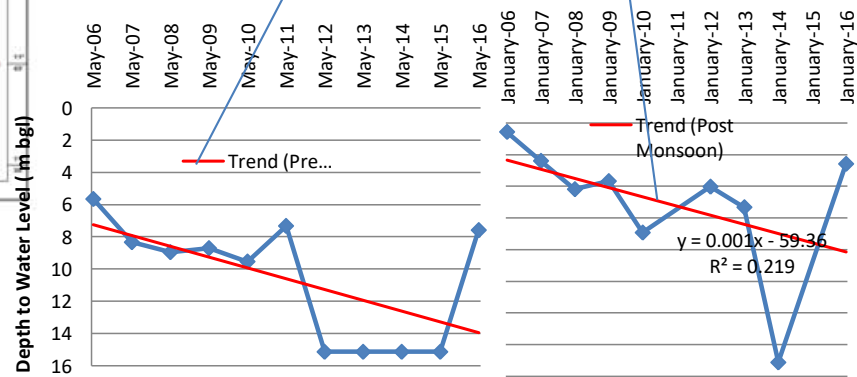


Figure 31. Hydrograph showing groundwater declining trend.

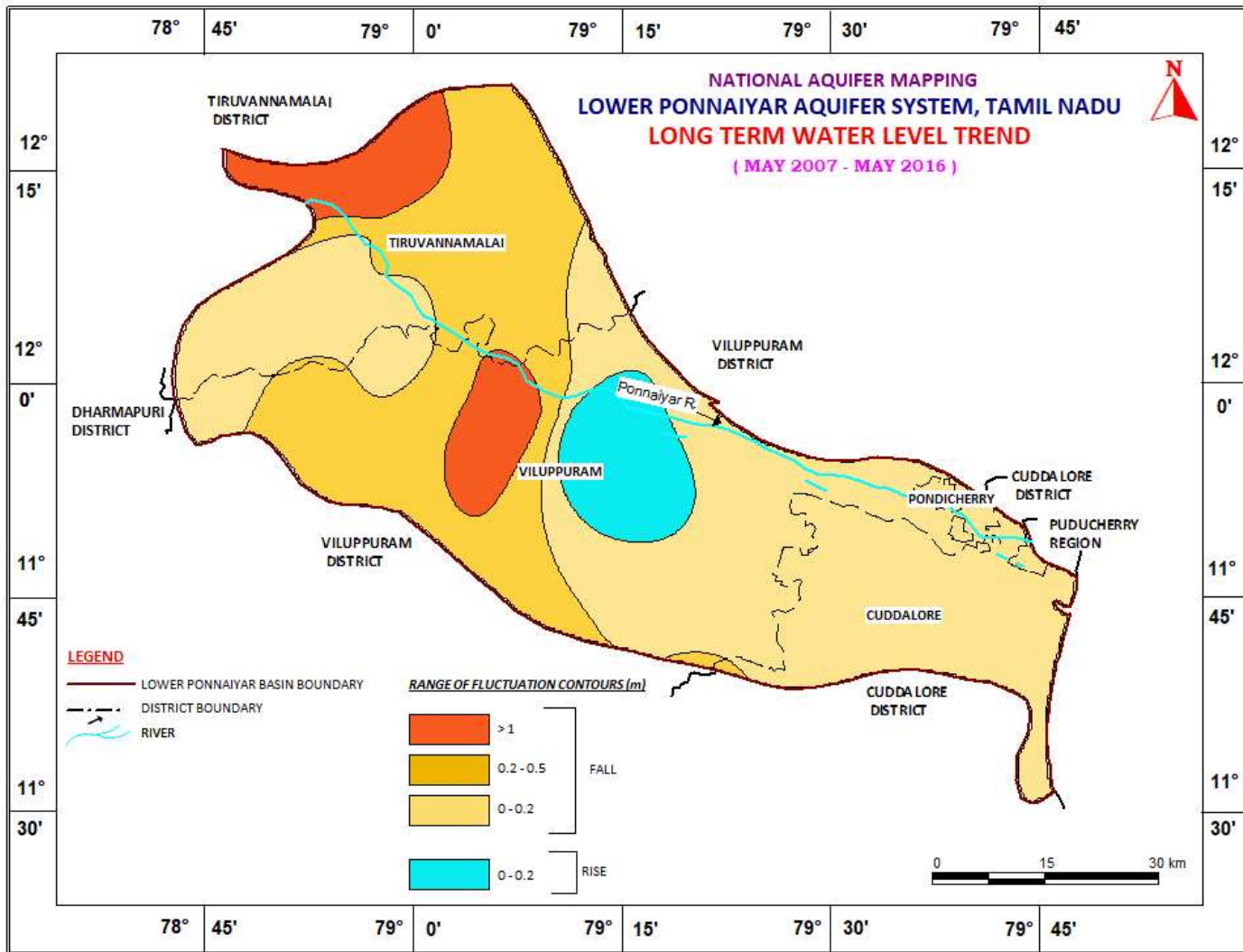


Figure 32. Long term water level trend (Premonsoon) of the lower Ponnaiyar aquifer system

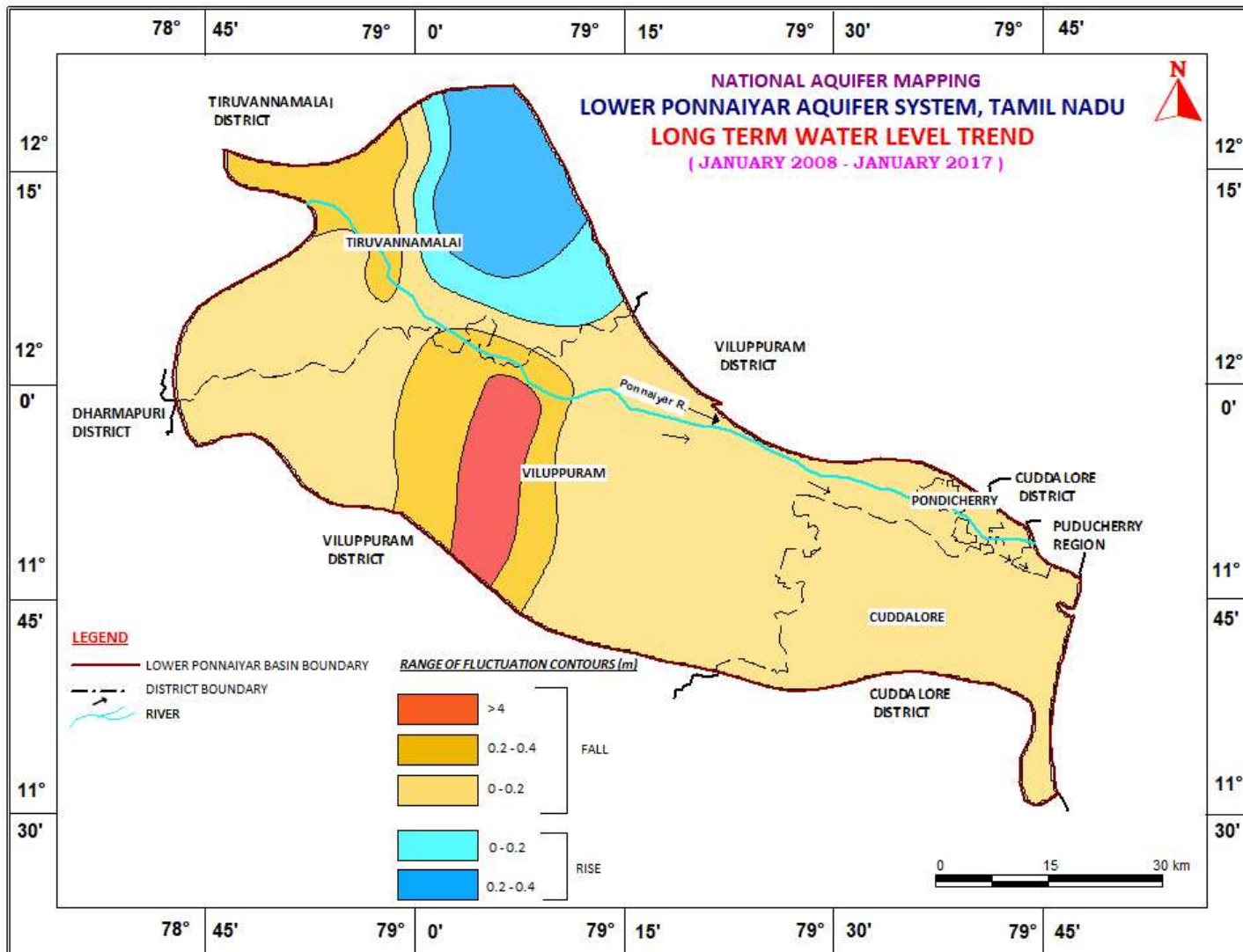


Figure 33. Long term water level trend (Postmonsoon) of the lower Ponnaiyar aquifer system

5.3. Groundwater quality issues

Sea water intrusion threat exists in the coastal part of the Cuddalore district due to the over exploitation of groundwater resources to meet Irrigation, Industries and domestic needs. For the last decade industries were established in the coastal part of the Cuddalore and tubewells have been constructed to meet the industrial demand of the area. Coastal part of the study area is already occupied by groundwater high in EC content. In addition to the heavy withdrawal of groundwater for irrigational activities, this industrial demand may create stress to the aquifer system in the coastal area and it may invite sea water intrusion. Hence restriction of further exploitation of groundwater has to be made in the coastal region. Certain precautional activities have to be taken up in the coastal regions.

- Restriction of heavy pumping of GW in the coastal area (about 5 kms from the coast).
- Construction of suitable artificial structures in the affected area to make fresh water ridge.
- Coconut and saline resistance crops are to be cultivated in areas having TDS 1500–2500 mg/l).

5.4. Massive formation and Poor Aquifer

Fracture analysis of the hard rock which occupies more than 70% of the aquifer system shows that in most of the areas, rock formations (Charnockite and Granitic Gneiss) are massive in nature. In the Charnockite region the occurrence of fractures is restricted to 66 m bgl and in Granitic Gneiss region most of the fractures area confined to 100 – 150 m bgl. Comparatively Charnockite are more massive than granitic gneiss and it occupies about 30% of the study basin. In these areas scarcity problem exist and the people are struggling to meet their domestic demands. Fracture analysis chart in Hard rock area of the Lower Ponnaiyar aquifer system is given in **Figure 34**.

5.5. Future Demand Scenario and Stress on Aquifer system

Future groundwater demand projected for domestic utilization up to the year 2030 is calculated as 129 MCM. This will have minimal additional stress on the aquifer system compared to the existing groundwater draft. However, draft can be regulated through increasing the water efficiency practices in irrigation sector. Already the dependency on groundwater for domestic and drinking needs is decreasing in groundwater contaminated areas as the alternative surface/ river sources are being harnessed.

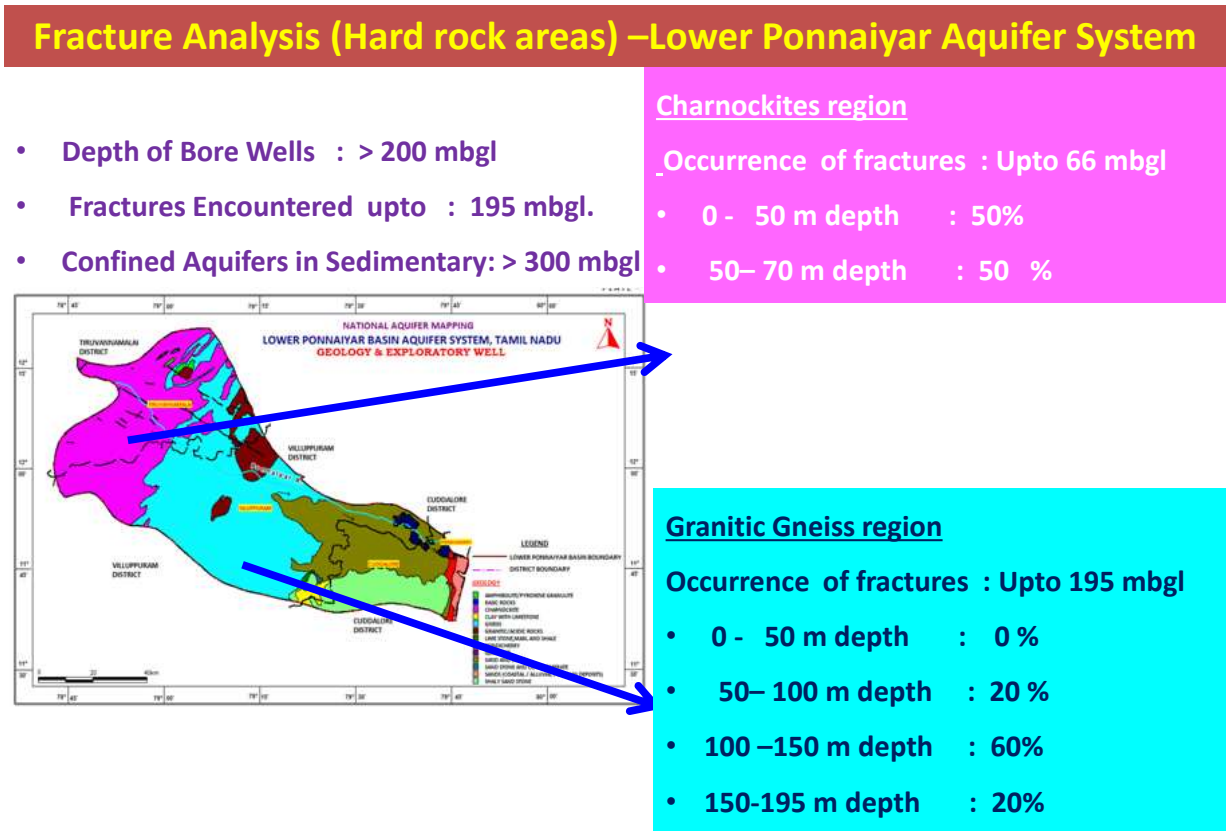


Figure 34. Fracture analysis chart in Hard rock area of the Lower Ponnaiyar aquifer system.

6.0. MANAGEMENT STRATEGIES

The groundwater management strategies are inevitable either when there is much demand to the resource than the available quantity or when the quality of resource deteriorates due to contamination in a given geographical unit. In recent years groundwater resources are used extensively for irrigation in the study area. In addition, to meet the domestic requirements of the fast growing urban agglomerations and establishment of Industries in the coastal area of the study area the administrators are compelled to allocate a considerable quantum of resource which otherwise is being used for irrigation purpose. So, the urbanization and Industrialization has a negative impact on the food production as well as grabbing the employment of the agricultural laborers. Also the limited groundwater resources available in the less fractured and jointed aquifer system of the study area, unequal distribution of groundwater resources in these areas creates more demands for the resources. Hence, it is the need of the hour to formulate sustainable management of the groundwater resource in a more rational and scientific way. In the present study area of Lower Ponnaiyar aquifer system, the sustainable management plan for groundwater is being proposed after a thorough understanding of the aquifer disposition down to a depth of 200 m bgl in the hardrock area and 300 m bgl in the sedimentary area.

6.1 Sustainable Management Plan

The groundwater resource of 17 Over Exploited and Critical firkas of the aquifer system are estimated. Irrigation draft of 810 MCM is estimated for the entire study area as per the GEC 2013 against the Net availability of the resource of 1062 MCM. Excess groundwater was drawn from the groundwater system of the 17 Over Exploited and Critical firkas out of 38 firkas of the study area. Therefore, the usage of groundwater has to be reduced by 40 percent of the existing draft for the sustainability of the resource. Or else the availability has to be augmented through artificial recharge methods to bridge the gap between draft and availability. The draft can be reduced through application of water efficiency methods in irrigation sector and through changing the irrigation practices from wet to dry cash crops.

6.2 Augmentation Plan

Augmentation of groundwater can be achieved through construction of percolation ponds and recharge shafts where the top soil zone is clayey which does not allow infiltration. Normally it can be achieved through capturing surface runoff. Surface water transfer also can be planned in the absence of surface runoff during droughts. It needs uncommitted runoff from the adjoining localities to transport to the needy areas through diversion channels.

In the study area northeastern, central and pockets of eastern parts are subjected to Over-exploitation. Normally due to over exploitation of groundwater the water levels are depleting in this zone. The natural rainfall recharge is insufficient to recoup the extracted groundwater. Artificial Recharge and Water Conservation Plans are proposed in the OE& Critical firkas of the basin through utilizing the uncommitted surface runoff of 230 MCM.

6.2.1. Artificial Recharge Plan

Based on the water level monitoring in different seasons across the basin, as well as after having better understanding of the disposition and extent of the aquifer system through exploratory drilling, pumping tests etc., the potential volume of void space available within the weathered zone of first aquifer of the 17 Over Exploited and Critical firkas has been estimated as 711 MCM. But the annual uncommitted runoff is only 230 MCM which is less than 50% of required water to fill the available void space of aquifer-I. Artificial recharge and Water conservation plan is prepared for the over exploited firkas of the basin area through harnessing just less than 30% of the annual uncommitted runoff of 25 MCM only with a total out lay of 132 crore rupees.

The suggested artificial recharge structures are mainly Nala bunds, Recharge ponds, Masonry Check Dams and Recharge Shafts in addition to removal of silt in the surface tanks. Selection of the site locations of these structures are based on the critical analysis of the hydrogeological, geophysical and exploration data of the basin (**Figure 35**). Particularly geomorphological and drainage aspects are being given more weightage in selection of the Artificial Recharge structures.

A total number of 192 check dams, 650 nala bunds, 818 recharge shafts are proposed in the OE and critical firkas of the basin. A total number of 237 Recharge Rejuvenation ponds are selected for desilting followed by construction of recharge shafts within the tanks. The expected recharge through these artificial recharge structures is in the order of 25 MCM.

The expected benefit by the recharge structures in the 17 Over Exploited and Critical firkas area will be creation of additional crop area of Paddy of 1562 ha or Sugarcane of 1250 ha (or) Banana of 2500 ha (or) Irrigated Dry crops of 4717 ha or Arrest decline in groundwater levels or increase pumping hours or increase in sustainability of well yield.

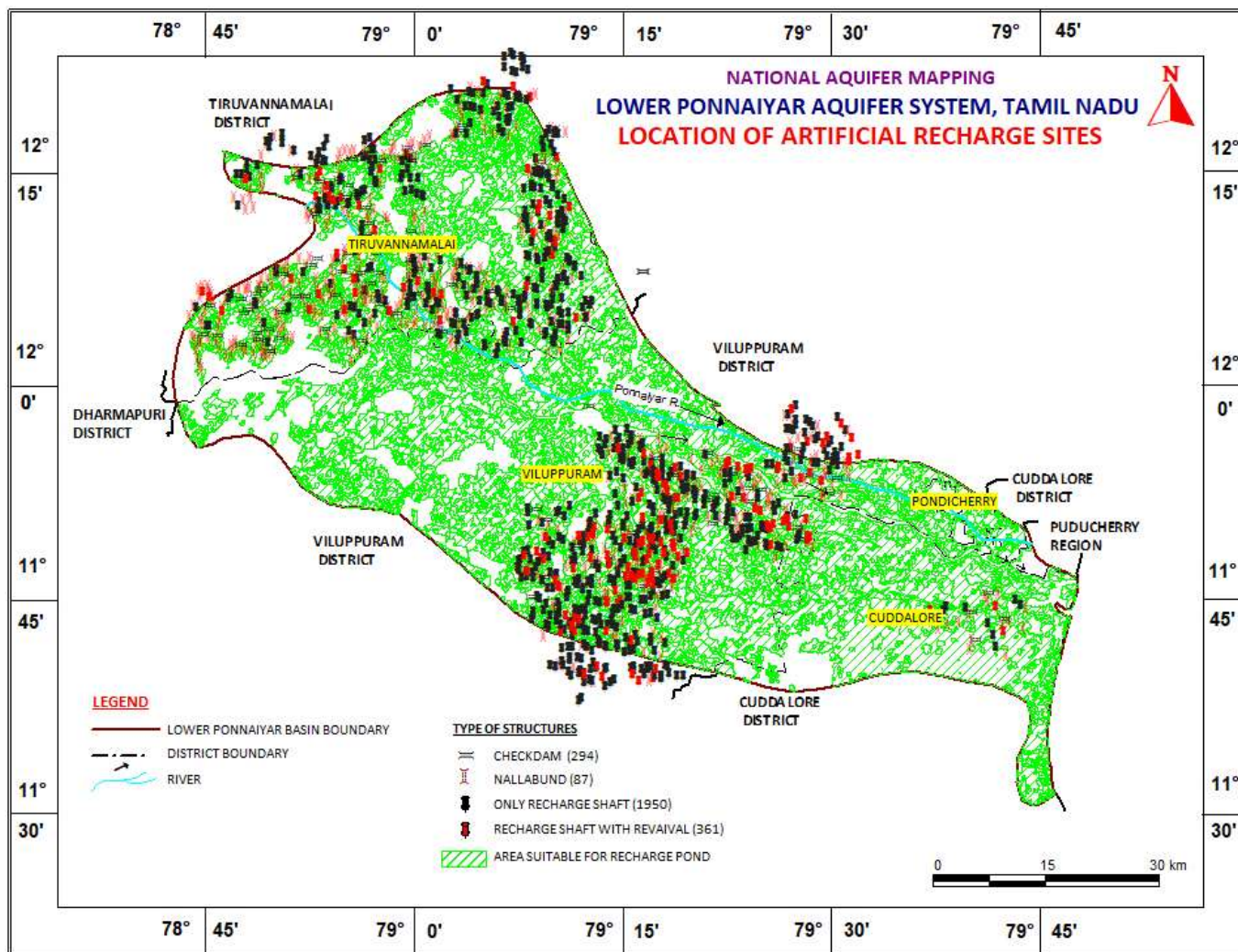


Figure 35. Location of Proposed Artificial Recharge sites in lower Ponnaiyar aquifer system

6.3. Demand side Management Plan

Demand side management can be accomplished through change in irrigation pattern. It is recommended to change the irrigation pattern for paddy, Sugarcane and Banana crops. The general practice for paddy irrigation is by flooding method. It is recommended for ridge and furrow method instead of flooding method in 686.6 sq.km and this would save 142.8 mcm of water annually. Similarly for sugarcane and banana crops shift from flooding to drip irrigation would save 164.3 and 35.2 mcm respectively. The total water saved is 323 mcm (Figure 36).

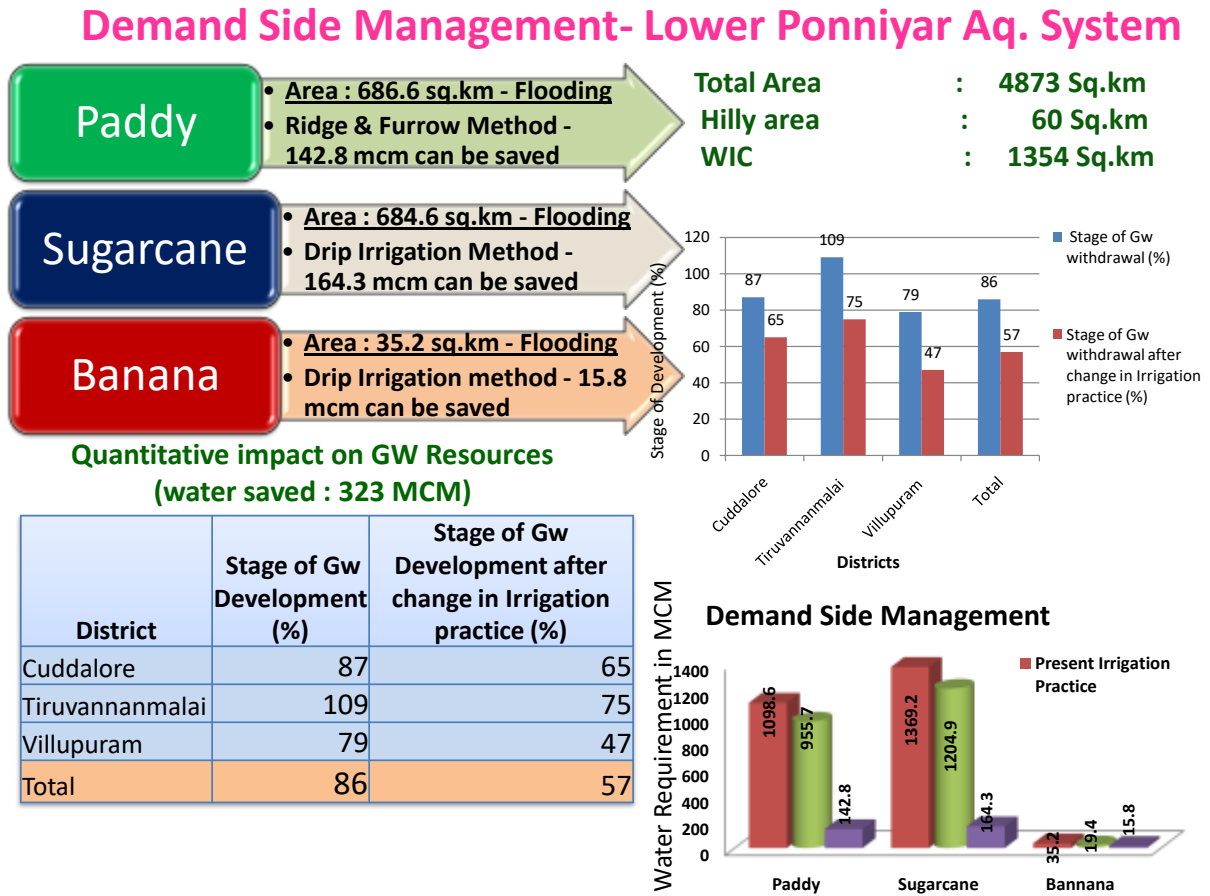


Figure 36. Demand side management of Lower Ponnaiyar aquifer system.

The total cost for the change in the irrigation pattern for those water intensive crops would be 310 crores. If Scenario 1 - 30% Area is changed then water saved would be 97 MCM. The cost would be 91 crore and the Stage of Development would be lowered from 86 to 77%. In case of Scenario II wherein 50% Area is changed then Water saved would be 161.5 MCM and the Cost would be 171 crore. The stage of Development would be lowered from 86 to 57%.

6.4. Future Demand Stress Aspects

In view of rapid urbanization the domestic water needs are increasing multifold. In this urbanization process the water wastage component is increasing mainly because of leakages through distributor system. Whereas in the agricultural irrigation sector the water demand mainly due to the enthusiasm of the farmers to increase the crop irrigation area.

Hence the policy makers at higher administrative level and rural development authorities at block level should educate the farmers in their jurisdiction in such a way that they should not venture to increase the farm irrigation area. Rather these authorities have to suggest high yielding crop varieties and high-value crops to grow with minimum water requirement with the technical guidance of local agricultural/ agronomic experts.

6.5. Strategies to overcome the future stresses

Future stresses are only hypothetical. If the sustainable management is taken up in a true spirit in consultation with local village level bodies the groundwater depletion will not occur in future. However, it is very difficult to overcome gluttonous user attitude thrives for fullest use of the resource to get maximum output. In this process the vital resource is lost. Therefore a thorough understanding of the consequences of indiscriminate usage of the water should be propagated among users mainly among farmers as they are bulk users of the resource in the study area.

The demand side strategies to overcome future stresses are mainly

- Promoting irrigation pattern change
- Agronomic Water Conservation
- Reducing Water use in Urban areas

Details of exploration and aquifer parameters in Lower Ponnaiyar aquifer system Annexure-I

Exploratory well constructed in Sedimentary rock																		
Sl. No.	Location Co-ordinates Toposheet Number and R.L. of G.L. (amsl)	Year of Drilling	Depth drilled constructed (mbgl)	Lithology	Depth to Bed rock (mbgl)	Granular zones deciphered (mbgl)	Aquifer zones tapped (mbgl)	Type of Test & depth range of zone tested (mbgl)	Results of zone test	SWL (mbgl) Date	Results of Aquifer Performance Test						Remarks	
											Discharge (lps)	Specific capacity (lpm/m of DD)	T (m ² /day)	S	EC	Cl		
																		Drawdown (m)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	CHETTTERU VU(EW)-3006 (11° 40' 00"; 79° 24'30"-58 M/6) 82.380	1957	241.46 71.63	Sand with clay, Cuddalore sandstone with shale	--	19.81-32.01 38.10-50.30 62.50-74.70 94.50-115.20 185.97-208.84 222.56-234.75	19.82-32.02 38.12-68.62	--	--	8.71 8.9.57	36.30 6.73	323.50	838.30	--	162	30		
2	ALAPAKKAM (EW)-3012 (11° 36' 15" ;79° 43'45"-58 M/10) 2.070	1957	457.20 74.90	Sand with Clay and Gravel Sand stones	--	20.73-41.16 49.39-54.89 60.98-72.29 208.32-245.43 289.63-324.70	25.30-42.77 48.95-54.54 60.51-71.98	--	--	0.98 8.10.57	46.30 6.53	425.46	1784.65	--	261	20		
3	KADAMBULI YUR(EW)-3007 (11° 42' 00" ; 79° 33' 00"-58 M/10)	1957	215.39 143.26	Sand and Clay Cuddalore	--	30.48-50.34 56.40-67.00 69.00-77.84	86.85-100.60 108.20-120.40 128.00-140.20	--	--	50.60 12.8.57	24.60 0.78	1892.00	3142	2.975 x 10-5	107	10		

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

				Sand stones		87.50-101.20 107.30-122.00 125.50-198.15												
	78.560																	
4	CHAVADI(EW)-3005 (11° 44' 45" ; 79° 45' 00"-58 M/9) 4.320	1984	670.50	Sand and Clay and gravel followed by Cuddalore Sand stones with pyrite nodules	--	78.50-80.00 83.00-85.00 92.00-108.00 111.00-114.00 121.00-124.00 127.00-135.00 136.00-141.00 142.00-147.00 149.00-180.00 181.00-185.00 187.00-198.00 203.00-229.00 231.00-237.00 239.00-250.00 251.00-254.00 256.00-260.00 271.00-296.00 297.00-330.00 331.50-340.60 341.00-353.00 355.00-366.00 367.50-383.00	141.86-148.00 165.73-172.00 187.68-193.87 210.04-221.63 239.91-249.00 259.87-266.00 280.00-292.28 301.62-320.00 342.26-351.28 370.10-381.74 480.87-415.23	--	--	0.85 27.7.84	49.10 7.68	383.80	7860.1	9.583 x 10-4	296	25		

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

						635.00-638.00 644.00-652.00 653.00-660.00												
5	CHAVADI(OW) 4.685	1984	507.60 415.00	Sand and Clay with Lignite at Places	--	--	143.00-148.56 166.36-172.39 188.37-194.33 211.15-220.31 243.21-249.23 260.25-266.267 282.21-291.13 305.16-317.16 344.16-350.10 372.27-381.10 409.03-415.00	--	--	2.69 27.784	0.37 while pumping EW	--	--	--	--	--	--	
6	NADUVEERA PATTU(EW)-3002 (11° 44' 15" ; 79° 37' 30"-58 M/9) 27.245	1985	370.30 348.00	Cuddalore Sand stone with Clay intercalations	--	30.00-50.00	153.68-165.31 171.75-177.92 180.92-187.09 200.03-217.82 229.83-235.77 241.73-247.63 253.50-259.69 271.71-289.68 298.60-304.63 310.61-319.82 331.83-344.96	--	--	20.33 20.685	42.20 4.79	528.73	767.50	--	221	21		
7	NADUVEERA PATTU (OW-I)	1986	751.32	Cuddalore	--	30.00-50.00	--	--	--	--	--	--	--	--	--	--	Borehole	

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

			555.20	Sand stone with clay intercalations and limestone with fragments of fossils		95.00-113.00 117.00-137.00 142.00-173.00 177.00-152.00 185.00-225.00 235.00-242.00 348.00-359.00 400.00-410.00 423.00-430.00 460.00-467.00 477.00-485.00 508.00-517.00 549.00-556.00 565.00-748.00											abandoned	
27.260																		
8	NADUVEERA PATTU(OW-II)	1986	556.40	Cuddalore Sand stone with Clay intercalations	--	399.15-409.70 423.70-429.80 434.82-465.95 479.11-485.28 520.98-523.94 531.96-536.08 549.00-555.20	--	--	--	11.95	11.44	122.15	377.73	--	2050	503.54	Converted as Permanent Observation Well	
	27.245		555.20							24.10.86	5.62							
9	KUDIYIRUPP U(SH)	1986	751.06	Sand stone Clay, Limestone and Shale	--	30.00-134.00 143.00-146.00 155.00-157.50	--	--	--	--	--	--	--	--	--	--		
	(11° 41'40"; 79° 28'35" - 58 M/6)		--															

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

				intercalations		169.00-172.00 179.00-184.00 193.00-198.00 201.00-209.00 261.00-169.00 274.00-278.00 281.00-289.00 294.00-297.00 385.50-387.00 399.00-400.00 408.00-413.00 415.00-418.00 424.00-430.00 435.00-437.00 468.00-470.00 477.00-480.00 488.00-500.00 514.00-517.00 538.00-541.00 554.00-557.00 593.00-595.00 610.00-612.00 620.00-626.00											
10	METTUPALAYAM(PZ1)-3021 (11° 34' 30" ; 79° 42' 55"-58	1982	300.00	Sandstone	--	10.50-18.00	237.50-254.03			2.00							
			294.00	sand y clay and grave		22.00-23.00	264.00-267.05	--	--	6.1.89	--	--	--	--	--	68	Flowing Well
						36.00-40.00	273.04-275.54										

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

	M/10)			1		51.00-61.00 65.00-71.00 75.00-104.00 110.00-112.50 114.00-155.50 122.00-137.00 137.00-141.00 145.00-166.00 167.00-183.00 185.00-189.50 203.00-210.00	275.54-291.05											
11	METTUPALA YM(PZ2) 3.160	1982	214.00 192.00	Sand, Clay and Sand stone	--	151.00-156.03 166.99-182.04 185.00-189.03		--	--	2.00 6.1.89	--	--	--	--	--	138		
12	SANGILIKUP PAM(PZ4)-3011 (11° 39'30"; 79° 44'45") 2.362	1982	300.00 297.00	Sand, Clay Sand stone Clay with intercalations	--	21.00-43.00 53.50-58.00 59.00-61.00 63.00-73.50 75.00-81.50 83.50-90.00 92.00-96.00 99.00-125.00 129.00-138.00 140.00-143.00 145.00-167.00 170.00-	220.00-245.00 255.00-275.00 288.00-294.00	--	--	--	--	--	--	--	710	82	Flowing Well	

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

						178.00 180.00- 201.00 210.00- 248.00 251.00- 284.00 286.00- 297.00											
13	SANGILIKUP PAM(PZ5)- 3011 A	1982	204.00	Sand, Sand stone with inter- calati on of Clay	--	--	159.50-162.50	--	--	--	--	--	--	--	695	114	Flowing Well
			182.00				163.00-168.50 169.50-171.00 171.50-179.00										
	2.147																
14	TIRUVENDIP URAM(PZ30)- 3004 (11° 45' 00" ; 79° 43' 00"-58 M/10)	1982	302.00	Sand, y Clays and Sand stone	--	16.00-19.00	224.00-236.00	--	--	8.70	--	--	--	--	--	26	
			290.00				21.00-28.00 243.00-247.00 267.00-273.00 281.00-287.00 58.00-65.00 70.00-75.00 78.00-83.00 85.00-86.00 87.00-90.00 94.00-97.00 98.00-100.00 107.00- 130.00 138.00- 146.00 150.00- 160.00 163.00- 169.00 172.00- 184.00 184.00- 201.00										
	10.695																

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

						206.00- 211.00 218.00- 221.00 225.00- 231.00 242.00- 249.00 266.00- 272.00 281.00- 290.00												
15	NELLIKUPPA M(PZ32)-3003 (11° 46' 25" ; 79° 40' 30"-58 M/9) 15.900	1982	293.10	Sand, Clay	--	23.00-32.00	74.00-80.00			9.48								
			197.00	Sand stone with pebbles		34.00-39.00 41.00-50.00 53.00-65.00 67.00-70.00 73.00-80.00 84.00-90.00 103.00- 109.00 109.00- 115.00 120.50- 122.00 124.00- 129.00 131.00- 198.00 199.00- 205.00 209.00- 222.00 224.00- 259.00 267.00- 270.00	130.00-139.00 185.00-194.00	--	--	10.1.87	--	--	--	--	--	--	--	--
16	TUKKANAMP AKKAM (11° 50' 45" ; 79° 42' 45"-58 M/9) 22.090	1986	300.00	Sand y soil Sand stone	--	--	210.00-234.00			18.30								
			264.00				255.00-261.00	--	--	10.1.89	--	--	--	--	--	--	--	

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

17	SANGLIKUPP AM(DW-I) (11°39'40";79°44'45"-58M/10) 6.280	2002	454.00	Sand & Clay	--	65-72	410-434	2.5 lps during developm ent	--	12.25	--	--	--	--	3330	968	Deposit well
			440.00			74-82											
						85-90											
						92-96.5											
						99-126											
						128-141											
						143-166											
						168-176											
						180-201											
						210-215											
						217-247											
						251-278											
						280-284											
						285-296											
						298-353											
						356-374											
						376-399											
	400-422																
	424-436																
	438-454																
18	SANGLIKUPP AM(DW-II) (11°39'40";79°44'45"-58M/10) 6.350	2002	351.50	Sand & Clay	--	65-72	316-340	31.30 lps during developm ent	--	11.62	--	--	--	--	1216	213	Deposit well
			346.00			74-82											
						85-90											
						92-96.5											
						99-126											
						128-141											
						143-166											
						168-176											
						180-201											
						210-215											

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						217-247 251-278 280-284 285-296 298-353 356-374 376-399 400-422 424-436 438-454											
19	SANGILIKUP PAM(PZ III) (11°39'40";79°44'45"-58M/10) 6.015	2002	306.00	Sand s & Clay	--	65-72	267-279	21.71 lps	--	11.55	--	--	--	--	748	--	Deposit well
			303.00			74-82 85-90 92-96.5 99-126 128-141 143-166 168-176 180-201 210-215 217-247 251-278 280-284 285-296 298-353 356-374 376-399 400-422 424-436 438-454	285-297	during development									
20	PERIYAPATTU (DW)	2002	301.00	Sand s & Clay	--	48-51	278-294	4.36 lpps	--	12.70	3.61	--	--	--	1376	248	Deposit well

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						250-254 268-273 277-283 286-295										
22	THAZHANGU DA (EW) 11°44'30";79°47'00"-58M/14	2005	250.00	Stand stone		25-38	216-231			14.75	4.30	116.00	680.00			
			249.00			84-91 94-102 104-106 111-128 136-145 148-156 160-171 186-190 192-194 201-208 216-231 235-244	235-244			2.25						
23	MANJAKUPP AM (EW) 11°45'47";79°47'25"-58M/14	2005		Stand stone			212-224			18.20	1.40	110.53				
			247.00				230-242			0.76						
24	MANJAKUPP AM (OW)-I 11°45'47";79°47'25"-58M/14	2005	200.00	Stand stone			149-160			19.85	10.00	444.44			983	
			166.00							1.35						
25	MANJAKUPP AM (OW)-II 11°45'47";79°47'25"-58M/14	2005	125.00	Stand stone			100-118			14.65	4.90	67.59			1260	
			121.00							4.35						
26	PANRUTI(PZ3 9)-3001 (11° 45'20"; 79° 33'00"-58 M/10) 25.450	1995	300.05	Cuddalore	--	25.00-111.00	164.00-170.24	--	--	21.22	0.75	--	--	--	1370	149
			191.00	Sand stone with clay intercalations		147.00-151.00 162.00-170.00 183.00-185.00	181.89-188.00			16.8.95	--					

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						186.00- 188.00- 194.00- 198.00- 204.00- 205.00- 232.00- 236.00- 245.00- 250.00											
27	PANRUTI(PZ40) (11° 45'22"; 79° 33'03"-58 M/10)	1995	102.00	Cuddalore	--	--	60.00-66.00	--	--	22.52	2.30	--	--	--	334	25	
			99.00	Sand stone with clay intercalations				90.00-96.00			8.9.95	--					
	25.750																
28	KUDIKADU(PZ41)-3008 (11° 42'32"; 79° 45'50"-58 M/14)	1995	200.00	Cuddalore	--	25.00-34.00	109.00-115.00			14.53							
			145.00	Sand stone with clay intercalations				37.00-42.00 48.00-50.00 59.00-62.00 76.00-102.00 109.00-115.00 117.00-120.00 125.00-128.00 138.00-143.00 149.00-156.00 162.00-166.00 193.00-195.00	130.00-142.00	--	--	13.3.96	2.20	--	--	--	690
	5.950																
29	KUDIKADU(PZ42) (11° 42'34"; 79° 45'52" - 58 M/14)	1995	39.00	Cuddalore	--	--	25.00-34.00	--	--	7.60	1.50	--	--	--	2170	540	
			37.00	Sand stone with clay Inter calati							27.3.96						

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				ons													
30	THAZHANGU DA (EW) 11°44'30";79°47'00"-58M/14	2005	250.00	Stand stone	25-38	216-231			14.75	4.30	116.00	680.00					
			249.00		84-91	235-244				2.25							
					94-102												
					104-106												
					111-128												
					136-145												
					148-156												
					160-171												
					186-190												
					192-194												
					201-208												
					216-231												
					235-244												

Basic data of Exploratory well constructed in Hard rock

Sl. No.	Location, Well number Co-ordinates Toposheet Number and R.L. of G.L. (mamsl)	Year of Drilling	Depth drilled	Lithology	Fracture zones encountered (mbgl) / Discharge (lps)	Type of preliminary yield Test & Results (*)	Results of aquifer performance test					EC	Cl	Remarks
			Casing Pipe Lowered (mbgl)				SWL (mbgl) Date	Discharge (lps) Draw down (m)	Specific capacity (lpm/m of Draw down)	T (m ² /day)	S			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	ATTYANDAL (EW) 12°13'50";79°01'35"- 57P/4 178.40	1997	200 7.50	Charnockite	8.70-9.30/moisture	--	0.69 12.3.97	--	--	--	--	450	15	
2	SAMBANDANUR(EW) 12°12'50";79°07'20"- 57P/4 141.025	1997	128.9 8.00	Granite	11.30-12.00/1.2 53.00-53.50/1.7 124.00-124.30/2.49 127.00-127.50/2.90	--	6.90 11.6.97	2.25 2.73	49.45	59	2.1X10 ⁻⁴	400	28	
3	SAMBANDANUR(OW) 12°12'50";79°07'20"- 57P/4 141.020	1997	100 4.50	Granite	9.00-9.50/1.2 48.00-48.50/2.11 85.20-85.70/2.49	--		2.49 7.98	18.72	5	--	--	--	
4	VALAVACHCHANUR(EW) 12°04'00";78°58'30"- 57L/16 148.230	1997	95.10 6.70	Granite	9.50-10.00 40.00-41.10/4.36 62.00-62.50/5.35	--	3.65 31.3.97	9.21 7.98	54.88	74.5	--	750	78	
5	VALAVACHCHANUR(OW) 12°04'00";78°58'30"-	1997	36.40 6.70	Granite	31.30-32.40/8.40	--	3.68 24.4.97	--	--	--	--	625	80	

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

	57L/16 148.26														
6	THANIPADI(EW) 12°06'30";78°50'15"- 57L/6 205.89	1997	128 6.10	Granite gneiss	23.10-24.10/0.07	--	6.70 23.7.97	--	--	--	--	1560	230		
7	ADAYUR (12°16'00";79°02'00"- 57P/3)	2004	131 6.00	Charnockite	11-12/0.731 55.0-55.5/2.11 77.0-77.5/3.80	--	16.80 17.03.0 4	3.8	--	--	--	--	--	No test was conducted	
8	DURGAINAMMIYAN DAL (12°16'45";79°03'10"- 57P/3)	2004	220 6.00	Charnockite	DRY	--	--	--	--	--	--	--	--	No test was conducted	
9	MEMALUR (EW) - 5417 (11° 51' 45";79° 09' 50" - 58 M/1) 86.645	1992	230.20 5.60	Granite Gneiss	9.00-12.00 / 0.77 125.00-128.00 / 1.80 176.00-180.00 / 3.30 229.00-230.00 / 6.90		0.50 15.12.9 2	2.41 29.15	4.96	2.61	1.49 x 10 ⁻³	5020	1347		
1 0	MEMALUR (OW) - 5417 (11° 51' 45";79° 09' 50" - 58 M/1) 87.790	1992	198.53 5.60	Granite Gneiss	9.00-12.00 / 0.316 32.00-35.00 / 1.20 50.00-52.00 / 2.50 100.00-103.00 / 3.30	--	3.00 10.3.92	--	--	141.2	--	774	71		
1 1	ULUNDURPETTAI(E W)-5427	1992	300.00	Granite	202.00-206.00 / 0.215	Air Test	2.10	--	--	--	--	570	71		

Aquifer Mapping and Management Plan for the Lower Ponnaiyar Aquifer System, Tamil Nadu- 2016-17

	(11° 41' 50";79° 18' 46"-58 M/6)		5.50	Gneiss with Pegmatites	250.00-254.00 / 0.77 262.00-264.00 / 1.50	Q = 1.50 T = 0.50	16.3.93							
1 2	SANKARAPURAM(EW)-5415 (11° 53' 52";78° 54' 35"-58 I/13)	1992	190.92	Charnockite	14.00-16.00 / 0.44		3.50	3.40	37.63	21.51	--	1100	131	
	153.285		6.05	Pegmatite and Granite	21.00-23.00 / 1.22 64.00-66.00 / 2.50		29.4.93	5.42						
1 3	SANKARAPURAM(OW)	1992	137.57	Charnockite	11.00-12.00 / 0.77	--	3.40	--	--	--	--	1255	128	
	154.800		6.05	Pegmatite and Granite	26.00-28.00 / 1.22 64.00-66.00 / 2.50 87.00-88.00 / 3.30 95.00-97.00 / 4.83 136.00-138.00 / 6.50		29.4.93							
1 4	MICHAELPURAM(EW)-5413 (12° 01' 30";78° 57' 29"-57 P/7)	1992	152.81	Granite	12.00-14.00 / 0.50	Slug Test	5.50	--	--	--	--	705	96	
	151.730		5.50		at 150.00 / 0.50	Q = 0.50 T = 216	10.11.92							

BASIC DATA OF PIEZOMETERS CONSTRUCTED UNDER HYDROLOGY PROJECT

Sl No	Well No/Village	Block	Topo - sheet No	Latitude	Longitude	RL (magl)	Date of Drilling	Geology	Depth of Bore hole (mbgl)	Weathered Residuum (mbgl)	Fracture zones encountered (mbgl)	Discharge (lps)	Water level (mbgl)	EC (umhos/cm)
1	4802PZ VETTAVALAM	Thiruvannamalai	57P/04	12°06'15"	79°14'45"	152.92	8/7/1998	Granite	74.80	4	67.0-67.2	0.014	18.20	785
2	4803PZ SUVALAVATTI	Tiruvannamalai	57P/4	12°05'15"	79°08'00"	111.77	8/7/1998	Granite Gneiss	49.80	5.5	23.0-23.2	0.078	9.89	1560

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3	4804PZ TANDARAMPATTU	Thandaramp attu	57P/1 6	12°09' 15"	78°57'00"	215.71	8/8/1998	Granite Gneiss	55.5 0	11.5	16.0-16.3; 23.0-23.4	0.21 5	8.05	730
4	4814PZTHURUNZAPUR AM	Thurunzapur am	57P/0 3	12°19' 00"	79°06'00"	185.15	8/7/1998	Granite	46.5 0	3	21.0-21.2	0.21 0	12.50	650
5	4820PZ TIRUVANNAMALAI	Thiruvannam alai	57P/0 3	12°14' 00"	79°04'00"	174.14	8/7/1998	Granite Gneiss	49.5 0	5	19.0-19.2; 40.0-40.25	2.10 0	7.85	2850
6	5407PZ KADAMBUR	Tirukkivilur	58M/ 01	11°43' 50"	79°05'30"	110.98	2/9/1999	Pink Granite	41.7	5.5	12.0-12.15 21.0-21.10	1.50 0	1.50	4270
7	5408PZ G.ARIYUR	Tirukkivilur	58M/ 01	11°52' 04"	79°10'00"	94.58	2/17/1999	Granite	43	5.5	10.00-10.10 21.0021.10	0.21 5	7.40	1415
8	5409PZ ULUNDURPET	Ulundurpet	58M/ 05	11°39' 40"	79°17'40"	72.24	2/8/1999	Granite Gneiss	42.7	9.4	13.00-13.10 27.00-27.10	0.44 1	6.30	1050
9	5411PZ ARASUR	Thiruvennain allur	58M/ 05	11°49' 10"	79°25'40"	48.64	2/18/1999	Charnoki te	46	11.6	18.00-18.10 21.00-21.10 24.00-24.40 27.00-27.10	1.79 0	4.60	770
10	5413PZ PAKKAM	Sankarapura m	57I/1 3	11°56' 45"	78°57'30"	145.60	2/15/1999	Charnoc kite	46.8	11.6	14.00-14.10	0.21 5	6.30	2960.000
11	5414PZ SANKRAPURAM	Sankarapura m	57I/1 3	11°53' 00"	78°55'00"	158.23	2/14/1999	Granite	43	6.4	11.00-11.10 17.00-17.15	1.20 0	7.00	1800

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Proposed Artificial recharge structures in Lower Ponnaiyar Aquifer System					Annexure-II	
S.No	FIRKANAME	DHQ_NAME	LONGITUDE	LATITUDE	STRUCTURES	CATEGORY
1	Thiruvanthipuram	CUDDALORE	79.67	11.73	Checkdam	OVER EXPLOITED
2	Thiruvanthipuram	CUDDALORE	79.67	11.70	Checkdam	OVER EXPLOITED
3	Thiruvanthipuram	CUDDALORE	79.71	11.72	Checkdam	OVER EXPLOITED
4	Thiruvanthipuram	CUDDALORE	79.69	11.76	Checkdam	OVER EXPLOITED
5	Thiruvanthipuram	CUDDALORE	79.63	11.71	Nalabund	OVER EXPLOITED
6	Thiruvanthipuram	CUDDALORE	79.64	11.72	Nalabund	OVER EXPLOITED
7	Thiruvanthipuram	CUDDALORE	79.67	11.70	Nalabund	OVER EXPLOITED
8	Thiruvanthipuram	CUDDALORE	79.67	11.69	Nalabund	OVER EXPLOITED
9	Thiruvanthipuram	CUDDALORE	79.71	11.68	Nalabund	OVER EXPLOITED
10	Thiruvanthipuram	CUDDALORE	79.70	11.72	Nalabund	OVER EXPLOITED
11	Thiruvanthipuram	CUDDALORE	79.71	11.72	Nalabund	OVER EXPLOITED
12	Thiruvanthipuram	CUDDALORE	79.73	11.71	Nalabund	OVER EXPLOITED
13	Thiruvanthipuram	CUDDALORE	79.73	11.74	Nalabund	OVER EXPLOITED
14	Thiruvanthipuram	CUDDALORE	79.69	11.75	Nalabund	OVER EXPLOITED
15	Thiruvanthipuram	CUDDALORE	79.67	11.73	Nalabund	OVER EXPLOITED
16	Thiruvanthipuram	CUDDALORE	79.65	11.72	Nalabund	OVER EXPLOITED
17	Thiruvanthipuram	CUDDALORE	79.70	11.76	Nalabund	OVER EXPLOITED
18	Thiruvanthipuram	CUDDALORE	79.72	11.74	Only Recharge Shaft	OVER EXPLOITED
19	Thiruvanthipuram	CUDDALORE	79.73	11.73	Only Recharge Shaft	OVER EXPLOITED
20	Thiruvanthipuram	CUDDALORE	79.64	11.73	Only Recharge Shaft	OVER EXPLOITED
21	Thiruvanthipuram	CUDDALORE	79.63	11.73	Only Recharge Shaft	OVER EXPLOITED
22	Thiruvanthipuram	CUDDALORE	79.66	11.73	Only Recharge Shaft	OVER EXPLOITED
23	Thiruvanthipuram	CUDDALORE	79.69	11.71	Only Recharge Shaft	OVER EXPLOITED
24	Thiruvanthipuram	CUDDALORE	79.69	11.70	Only Recharge Shaft	OVER EXPLOITED
25	Thiruvanthipuram	CUDDALORE	79.70	11.68	Only Recharge Shaft	OVER EXPLOITED
26	Thiruvanthipuram	CUDDALORE	79.70	11.73	Recharge shaft with Revival	OVER EXPLOITED
27	Thiruvanthipuram	CUDDALORE	79.71	11.70	Recharge shaft with Revival	OVER EXPLOITED

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28	Thiruvanthipuram	CUDDALORE	79.62	11.73	Recharge shaft with Revival	OVER EXPLOITED
29	Thiruvanthipuram	CUDDALORE	79.62	11.72	Recharge shaft with Revival	OVER EXPLOITED
30	PACHAL	TIRUVANNAMALAI	78.99	12.26	Checkdam	OVER EXPLOITED
31	PACHAL	TIRUVANNAMALAI	79.00	12.26	Checkdam	OVER EXPLOITED
32	PACHAL	TIRUVANNAMALAI	78.96	12.26	Checkdam	OVER EXPLOITED
33	PACHAL	TIRUVANNAMALAI	79.02	12.28	Checkdam	OVER EXPLOITED
34	PACHAL	TIRUVANNAMALAI	78.93	12.26	Checkdam	OVER EXPLOITED
35	PACHAL	TIRUVANNAMALAI	78.86	12.24	Checkdam	OVER EXPLOITED
36	PACHAL	TIRUVANNAMALAI	78.99	12.28	Checkdam	OVER EXPLOITED
37	PACHAL	TIRUVANNAMALAI	78.86	12.25	Nalabund	OVER EXPLOITED
38	PACHAL	TIRUVANNAMALAI	78.86	12.24	Nalabund	OVER EXPLOITED
39	PACHAL	TIRUVANNAMALAI	78.88	12.24	Nalabund	OVER EXPLOITED
40	PACHAL	TIRUVANNAMALAI	78.91	12.27	Nalabund	OVER EXPLOITED
41	PACHAL	TIRUVANNAMALAI	78.92	12.27	Nalabund	OVER EXPLOITED
42	PACHAL	TIRUVANNAMALAI	78.93	12.27	Nalabund	OVER EXPLOITED
43	PACHAL	TIRUVANNAMALAI	78.93	12.27	Nalabund	OVER EXPLOITED
44	PACHAL	TIRUVANNAMALAI	78.94	12.27	Nalabund	OVER EXPLOITED
45	PACHAL	TIRUVANNAMALAI	78.96	12.28	Nalabund	OVER EXPLOITED
46	PACHAL	TIRUVANNAMALAI	78.97	12.27	Nalabund	OVER EXPLOITED
47	PACHAL	TIRUVANNAMALAI	78.98	12.28	Nalabund	OVER EXPLOITED
48	PACHAL	TIRUVANNAMALAI	78.97	12.28	Nalabund	OVER EXPLOITED
49	PACHAL	TIRUVANNAMALAI	79.00	12.28	Nalabund	OVER EXPLOITED
50	PACHAL	TIRUVANNAMALAI	79.00	12.28	Nalabund	OVER EXPLOITED
51	PACHAL	TIRUVANNAMALAI	79.02	12.29	Nalabund	OVER EXPLOITED
52	PACHAL	TIRUVANNAMALAI	79.01	12.29	Nalabund	OVER EXPLOITED
53	PACHAL	TIRUVANNAMALAI	79.01	12.28	Nalabund	OVER EXPLOITED
54	PACHAL	TIRUVANNAMALAI	78.82	12.24	Nalabund	OVER EXPLOITED
55	PACHAL	TIRUVANNAMALAI	78.85	12.27	Nalabund	OVER EXPLOITED
56	PACHAL	TIRUVANNAMALAI	78.80	12.24	Nalabund	OVER EXPLOITED
57	PACHAL	TIRUVANNAMALAI	78.80	12.22	Nalabund	OVER EXPLOITED

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58	PACHAL	TIRUVANNAMALAI	78.79	12.22	Nalabund	OVER EXPLOITED
59	PACHAL	TIRUVANNAMALAI	78.80	12.21	Nalabund	OVER EXPLOITED
60	PACHAL	TIRUVANNAMALAI	78.81	12.21	Nalabund	OVER EXPLOITED
61	PACHAL	TIRUVANNAMALAI	78.81	12.22	Nalabund	OVER EXPLOITED
62	PACHAL	TIRUVANNAMALAI	78.82	12.23	Nalabund	OVER EXPLOITED
63	PACHAL	TIRUVANNAMALAI	78.82	12.23	Nalabund	OVER EXPLOITED
64	PACHAL	TIRUVANNAMALAI	78.81	12.23	Nalabund	OVER EXPLOITED
65	PACHAL	TIRUVANNAMALAI	78.83	12.29	Nalabund	OVER EXPLOITED
66	PACHAL	TIRUVANNAMALAI	78.82	12.28	Nalabund	OVER EXPLOITED
67	PACHAL	TIRUVANNAMALAI	78.82	12.27	Nalabund	OVER EXPLOITED
68	PACHAL	TIRUVANNAMALAI	78.91	12.26	Nalabund	OVER EXPLOITED
69	PACHAL	TIRUVANNAMALAI	78.98	12.27	Nalabund	OVER EXPLOITED
70	PACHAL	TIRUVANNAMALAI	78.99	12.27	Nalabund	OVER EXPLOITED
71	PACHAL	TIRUVANNAMALAI	78.97	12.27	Nalabund	OVER EXPLOITED
72	PACHAL	TIRUVANNAMALAI	79.00	12.27	Nalabund	OVER EXPLOITED
73	PACHAL	TIRUVANNAMALAI	79.00	12.27	Nalabund	OVER EXPLOITED
74	PACHAL	TIRUVANNAMALAI	78.95	12.24	Only Recharge Shaft	OVER EXPLOITED
75	PACHAL	TIRUVANNAMALAI	78.95	12.25	Only Recharge Shaft	OVER EXPLOITED
76	PACHAL	TIRUVANNAMALAI	78.95	12.26	Only Recharge Shaft	OVER EXPLOITED
77	PACHAL	TIRUVANNAMALAI	78.96	12.25	Only Recharge Shaft	OVER EXPLOITED
78	PACHAL	TIRUVANNAMALAI	78.94	12.26	Only Recharge Shaft	OVER EXPLOITED
79	PACHAL	TIRUVANNAMALAI	78.94	12.26	Only Recharge Shaft	OVER EXPLOITED
80	PACHAL	TIRUVANNAMALAI	78.95	12.27	Only Recharge Shaft	OVER EXPLOITED
81	PACHAL	TIRUVANNAMALAI	78.95	12.27	Only Recharge Shaft	OVER EXPLOITED
82	PACHAL	TIRUVANNAMALAI	78.90	12.25	Only Recharge Shaft	OVER EXPLOITED
83	PACHAL	TIRUVANNAMALAI	78.89	12.25	Only Recharge Shaft	OVER EXPLOITED
84	PACHAL	TIRUVANNAMALAI	78.89	12.26	Only Recharge Shaft	OVER EXPLOITED
85	PACHAL	TIRUVANNAMALAI	78.88	12.25	Only Recharge Shaft	OVER EXPLOITED
86	PACHAL	TIRUVANNAMALAI	78.89	12.26	Only Recharge Shaft	OVER EXPLOITED

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87	PACHAL	TIRUVANNAMALAI	78.89	12.27	Only Recharge Shaft	OVER EXPLOITED
88	PACHAL	TIRUVANNAMALAI	78.90	12.28	Only Recharge Shaft	OVER EXPLOITED
89	PACHAL	TIRUVANNAMALAI	78.88	12.26	Only Recharge Shaft	OVER EXPLOITED
90	PACHAL	TIRUVANNAMALAI	78.87	12.24	Only Recharge Shaft	OVER EXPLOITED
91	PACHAL	TIRUVANNAMALAI	78.86	12.27	Only Recharge Shaft	OVER EXPLOITED
92	PACHAL	TIRUVANNAMALAI	78.84	12.27	Only Recharge Shaft	OVER EXPLOITED
93	PACHAL	TIRUVANNAMALAI	78.84	12.29	Only Recharge Shaft	OVER EXPLOITED
94	PACHAL	TIRUVANNAMALAI	78.83	12.28	Only Recharge Shaft	OVER EXPLOITED
95	PACHAL	TIRUVANNAMALAI	78.83	12.28	Only Recharge Shaft	OVER EXPLOITED
96	PACHAL	TIRUVANNAMALAI	78.95	12.28	Only Recharge Shaft	OVER EXPLOITED
97	PACHAL	TIRUVANNAMALAI	78.80	12.25	Only Recharge Shaft	OVER EXPLOITED
98	PACHAL	TIRUVANNAMALAI	78.81	12.25	Only Recharge Shaft	OVER EXPLOITED
99	PACHAL	TIRUVANNAMALAI	78.80	12.24	Only Recharge Shaft	OVER EXPLOITED
100	PACHAL	TIRUVANNAMALAI	78.79	12.24	Only Recharge Shaft	OVER EXPLOITED
101	PACHAL	TIRUVANNAMALAI	78.79	12.24	Only Recharge Shaft	OVER EXPLOITED
102	PACHAL	TIRUVANNAMALAI	78.81	12.23	Only Recharge Shaft	OVER EXPLOITED
103	PACHAL	TIRUVANNAMALAI	78.79	12.20	Only Recharge Shaft	OVER EXPLOITED
104	PACHAL	TIRUVANNAMALAI	78.94	12.28	Only Recharge Shaft	OVER EXPLOITED
105	PACHAL	TIRUVANNAMALAI	78.83	12.27	Only Recharge Shaft	OVER EXPLOITED
106	PACHAL	TIRUVANNAMALAI	78.99	12.26	Only Recharge Shaft	OVER EXPLOITED
107	PACHAL	TIRUVANNAMALAI	78.99	12.25	Only Recharge Shaft	OVER EXPLOITED
108	PACHAL	TIRUVANNAMALAI	79.00	12.26	Only Recharge Shaft	OVER EXPLOITED
109	PACHAL	TIRUVANNAMALAI	78.99	12.24	Only Recharge Shaft	OVER EXPLOITED
110	PACHAL	TIRUVANNAMALAI	78.99	12.24	Only Recharge Shaft	OVER EXPLOITED
111	PACHAL	TIRUVANNAMALAI	78.99	12.23	Only Recharge Shaft	OVER EXPLOITED
112	PACHAL	TIRUVANNAMALAI	79.00	12.23	Only Recharge Shaft	OVER EXPLOITED
113	PACHAL	TIRUVANNAMALAI	79.01	12.23	Only Recharge Shaft	OVER EXPLOITED
114	PACHAL	TIRUVANNAMALAI	79.00	12.22	Only Recharge	OVER EXPLOITED

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					Shaft	
115	PACHAL	TIRUVANNAMALAI	78.99	12.22	Only Recharge Shaft	OVER EXPLOITED
116	PACHAL	TIRUVANNAMALAI	78.96	12.25	Recharge shaft with Revival	OVER EXPLOITED
117	PACHAL	TIRUVANNAMALAI	78.80	12.23	Recharge shaft with Revival	OVER EXPLOITED
118	RF	TIRUVANNAMALAI	79.12	12.05	Only Recharge Shaft	
119	SOMASPADI	TIRUVANNAMALAI	79.16	12.25	Checkdam	OVER EXPLOITED
120	SOMASPADI	TIRUVANNAMALAI	79.15	12.26	Checkdam	OVER EXPLOITED
121	SOMASPADI	TIRUVANNAMALAI	79.17	12.25	Nalabund	OVER EXPLOITED
122	SOMASPADI	TIRUVANNAMALAI	79.17	12.18	Nalabund	OVER EXPLOITED
123	SOMASPADI	TIRUVANNAMALAI	79.18	12.20	Nalabund	OVER EXPLOITED
124	SOMASPADI	TIRUVANNAMALAI	79.17	12.24	Nalabund	OVER EXPLOITED
125	SOMASPADI	TIRUVANNAMALAI	79.16	12.26	Nalabund	OVER EXPLOITED
126	SOMASPADI	TIRUVANNAMALAI	79.15	12.26	Nalabund	OVER EXPLOITED
127	SOMASPADI	TIRUVANNAMALAI	79.15	12.25	Nalabund	OVER EXPLOITED
128	SOMASPADI	TIRUVANNAMALAI	79.14	12.25	Nalabund	OVER EXPLOITED
129	SOMASPADI	TIRUVANNAMALAI	79.14	12.19	Nalabund	OVER EXPLOITED
130	SOMASPADI	TIRUVANNAMALAI	79.16	12.16	Nalabund	OVER EXPLOITED
131	SOMASPADI	TIRUVANNAMALAI	79.15	12.18	Nalabund	OVER EXPLOITED
132	SOMASPADI	TIRUVANNAMALAI	79.15	12.15	Nalabund	OVER EXPLOITED
133	SOMASPADI	TIRUVANNAMALAI	79.16	12.15	Nalabund	OVER EXPLOITED
134	SOMASPADI	TIRUVANNAMALAI	79.16	12.18	Nalabund	OVER EXPLOITED
135	SOMASPADI	TIRUVANNAMALAI	79.16	12.25	Nalabund	OVER EXPLOITED
136	SOMASPADI	TIRUVANNAMALAI	79.16	12.28	Nalabund	OVER EXPLOITED
137	SOMASPADI	TIRUVANNAMALAI	79.17	12.28	Nalabund	OVER EXPLOITED
138	SOMASPADI	TIRUVANNAMALAI	79.17	12.30	Nalabund	OVER EXPLOITED
139	SOMASPADI	TIRUVANNAMALAI	79.17	12.30	Nalabund	OVER EXPLOITED
140	SOMASPADI	TIRUVANNAMALAI	79.18	12.29	Nalabund	OVER EXPLOITED
141	SOMASPADI	TIRUVANNAMALAI	79.16	12.30	Nalabund	OVER EXPLOITED
142	SOMASPADI	TIRUVANNAMALAI	79.17	12.26	Nalabund	OVER EXPLOITED
143	SOMASPADI	TIRUVANNAMALAI	79.17	12.17	Nalabund	OVER EXPLOITED
144	SOMASPADI	TIRUVANNAMALAI	79.13	12.18	Nalabund	OVER

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						EXPLOITED
145	SOMASPADI	TIRUVANNAMALAI	79.13	12.19	Nalabund	OVER EXPLOITED
146	SOMASPADI	TIRUVANNAMALAI	79.16	12.15	Nalabund	OVER EXPLOITED
147	SOMASPADI	TIRUVANNAMALAI	79.17	12.23	Only Recharge Shaft	OVER EXPLOITED
148	SOMASPADI	TIRUVANNAMALAI	79.17	12.22	Only Recharge Shaft	OVER EXPLOITED
149	SOMASPADI	TIRUVANNAMALAI	79.17	12.21	Only Recharge Shaft	OVER EXPLOITED
150	SOMASPADI	TIRUVANNAMALAI	79.15	12.19	Only Recharge Shaft	OVER EXPLOITED
151	SOMASPADI	TIRUVANNAMALAI	79.16	12.23	Only Recharge Shaft	OVER EXPLOITED
152	SOMASPADI	TIRUVANNAMALAI	79.15	12.24	Only Recharge Shaft	OVER EXPLOITED
153	SOMASPADI	TIRUVANNAMALAI	79.15	12.24	Only Recharge Shaft	OVER EXPLOITED
154	SOMASPADI	TIRUVANNAMALAI	79.15	12.24	Only Recharge Shaft	OVER EXPLOITED
155	SOMASPADI	TIRUVANNAMALAI	79.15	12.24	Only Recharge Shaft	OVER EXPLOITED
156	SOMASPADI	TIRUVANNAMALAI	79.15	12.24	Only Recharge Shaft	OVER EXPLOITED
157	SOMASPADI	TIRUVANNAMALAI	79.15	12.26	Only Recharge Shaft	OVER EXPLOITED
158	SOMASPADI	TIRUVANNAMALAI	79.16	12.27	Only Recharge Shaft	OVER EXPLOITED
159	SOMASPADI	TIRUVANNAMALAI	79.14	12.23	Only Recharge Shaft	OVER EXPLOITED
160	SOMASPADI	TIRUVANNAMALAI	79.15	12.22	Only Recharge Shaft	OVER EXPLOITED
161	SOMASPADI	TIRUVANNAMALAI	79.13	12.22	Only Recharge Shaft	OVER EXPLOITED
162	SOMASPADI	TIRUVANNAMALAI	79.15	12.22	Only Recharge Shaft	OVER EXPLOITED
163	SOMASPADI	TIRUVANNAMALAI	79.16	12.24	Only Recharge Shaft	OVER EXPLOITED
164	SOMASPADI	TIRUVANNAMALAI	79.16	12.20	Only Recharge Shaft	OVER EXPLOITED
165	SOMASPADI	TIRUVANNAMALAI	79.18	12.20	Only Recharge Shaft	OVER EXPLOITED
166	SOMASPADI	TIRUVANNAMALAI	79.17	12.19	Only Recharge Shaft	OVER EXPLOITED
167	SOMASPADI	TIRUVANNAMALAI	79.18	12.19	Only Recharge Shaft	OVER EXPLOITED
168	SOMASPADI	TIRUVANNAMALAI	79.18	12.21	Only Recharge Shaft	OVER EXPLOITED
169	SOMASPADI	TIRUVANNAMALAI	79.18	12.19	Only Recharge Shaft	OVER EXPLOITED
170	SOMASPADI	TIRUVANNAMALAI	79.17	12.18	Only Recharge Shaft	OVER EXPLOITED
171	SOMASPADI	TIRUVANNAMALAI	79.17	12.18	Only Recharge Shaft	OVER EXPLOITED
172	SOMASPADI	TIRUVANNAMALAI	79.18	12.18	Only Recharge	OVER

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					Shaft	EXPLOITED
173	SOMASPADI	TIRUVANNAMALAI	79.18	12.18	Only Recharge Shaft	OVER EXPLOITED
174	SOMASPADI	TIRUVANNAMALAI	79.16	12.17	Only Recharge Shaft	OVER EXPLOITED
175	SOMASPADI	TIRUVANNAMALAI	79.16	12.16	Only Recharge Shaft	OVER EXPLOITED
176	SOMASPADI	TIRUVANNAMALAI	79.16	12.16	Only Recharge Shaft	OVER EXPLOITED
177	SOMASPADI	TIRUVANNAMALAI	79.15	12.18	Only Recharge Shaft	OVER EXPLOITED
178	SOMASPADI	TIRUVANNAMALAI	79.14	12.20	Only Recharge Shaft	OVER EXPLOITED
179	SOMASPADI	TIRUVANNAMALAI	79.17	12.16	Only Recharge Shaft	OVER EXPLOITED
180	SOMASPADI	TIRUVANNAMALAI	79.17	12.15	Only Recharge Shaft	OVER EXPLOITED
181	SOMASPADI	TIRUVANNAMALAI	79.16	12.15	Only Recharge Shaft	OVER EXPLOITED
182	SOMASPADI	TIRUVANNAMALAI	79.16	12.15	Only Recharge Shaft	OVER EXPLOITED
183	SOMASPADI	TIRUVANNAMALAI	79.18	12.17	Only Recharge Shaft	OVER EXPLOITED
184	SOMASPADI	TIRUVANNAMALAI	79.14	12.22	Only Recharge Shaft	OVER EXPLOITED
185	SOMASPADI	TIRUVANNAMALAI	79.13	12.20	Only Recharge Shaft	OVER EXPLOITED
186	SOMASPADI	TIRUVANNAMALAI	79.14	12.19	Only Recharge Shaft	OVER EXPLOITED
187	SOMASPADI	TIRUVANNAMALAI	79.13	12.19	Only Recharge Shaft	OVER EXPLOITED
188	SOMASPADI	TIRUVANNAMALAI	79.14	12.19	Only Recharge Shaft	OVER EXPLOITED
189	SOMASPADI	TIRUVANNAMALAI	79.14	12.17	Only Recharge Shaft	OVER EXPLOITED
190	SOMASPADI	TIRUVANNAMALAI	79.14	12.16	Only Recharge Shaft	OVER EXPLOITED
191	SOMASPADI	TIRUVANNAMALAI	79.14	12.14	Only Recharge Shaft	OVER EXPLOITED
192	SOMASPADI	TIRUVANNAMALAI	79.14	12.14	Only Recharge Shaft	OVER EXPLOITED
193	SOMASPADI	TIRUVANNAMALAI	79.15	12.14	Only Recharge Shaft	OVER EXPLOITED
194	SOMASPADI	TIRUVANNAMALAI	79.15	12.14	Only Recharge Shaft	OVER EXPLOITED
195	SOMASPADI	TIRUVANNAMALAI	79.17	12.27	Only Recharge Shaft	OVER EXPLOITED
196	SOMASPADI	TIRUVANNAMALAI	79.17	12.27	Only Recharge Shaft	OVER EXPLOITED
197	SOMASPADI	TIRUVANNAMALAI	79.16	12.28	Only Recharge Shaft	OVER EXPLOITED
198	SOMASPADI	TIRUVANNAMALAI	79.16	12.29	Only Recharge Shaft	OVER EXPLOITED
199	SOMASPADI	TIRUVANNAMALAI	79.16	12.29	Only Recharge Shaft	OVER EXPLOITED

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200	SOMASPADI	TIRUVANNAMALAI	79.17	12.29	Only Recharge Shaft	OVER EXPLOITED
201	SOMASPADI	TIRUVANNAMALAI	79.17	12.29	Only Recharge Shaft	OVER EXPLOITED
202	SOMASPADI	TIRUVANNAMALAI	79.17	12.29	Only Recharge Shaft	OVER EXPLOITED
203	SOMASPADI	TIRUVANNAMALAI	79.16	12.21	Only Recharge shaft	OVER EXPLOITED
204	SOMASPADI	TIRUVANNAMALAI	79.16	12.19	Recharge shaft with Revival	OVER EXPLOITED
205	SOMASPADI	TIRUVANNAMALAI	79.15	12.20	Recharge shaft with Revival	OVER EXPLOITED
206	SOMASPADI	TIRUVANNAMALAI	79.15	12.20	Recharge shaft with Revival	OVER EXPLOITED
207	SOMASPADI	TIRUVANNAMALAI	79.19	12.20	Recharge shaft with Revival	OVER EXPLOITED
208	SOMASPADI	TIRUVANNAMALAI	79.14	12.24	Recharge shaft with Revival	OVER EXPLOITED
209	SOMASPADI	TIRUVANNAMALAI	79.17	12.26	Recharge shaft with Revival	OVER EXPLOITED
210	SOMASPADI	TIRUVANNAMALAI	79.14	12.17	Recharge shaft with Revival	OVER EXPLOITED
211	SOMASPADI	TIRUVANNAMALAI	79.17	12.16	Recharge shaft with Revival	OVER EXPLOITED
212	SOMASPADI	TIRUVANNAMALAI	79.17	12.16	Recharge shaft with Revival	OVER EXPLOITED
213	SOMASPADI	TIRUVANNAMALAI	79.17	12.14	Recharge shaft with Revival	OVER EXPLOITED
214	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.13	Checkdam	OVER EXPLOITED
215	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.13	Checkdam	OVER EXPLOITED
216	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.10	Checkdam	OVER EXPLOITED
217	THANDARAMPAT	TIRUVANNAMALAI	78.88	12.14	Checkdam	OVER EXPLOITED
218	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.17	Checkdam	OVER EXPLOITED
219	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.15	Checkdam	OVER EXPLOITED
220	THANDARAMPAT	TIRUVANNAMALAI	78.96	12.15	Checkdam	OVER EXPLOITED
221	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.12	Checkdam	OVER EXPLOITED
222	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.15	Checkdam	OVER EXPLOITED
223	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.22	Checkdam	OVER EXPLOITED
224	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.22	Checkdam	OVER EXPLOITED
225	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.24	Checkdam	OVER EXPLOITED
226	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.24	Checkdam	OVER EXPLOITED
227	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.23	Checkdam	OVER EXPLOITED

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228	THANDARAMPAT	TIRUVANNAMALAI	78.88	12.20	Checkdam	OVER EXPLOITED
229	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.21	Checkdam	OVER EXPLOITED
230	THANDARAMPAT	TIRUVANNAMALAI	78.96	12.13	Checkdam	OVER EXPLOITED
231	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.10	Nalabund	OVER EXPLOITED
232	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.09	Nalabund	OVER EXPLOITED
233	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.09	Nalabund	OVER EXPLOITED
234	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.11	Nalabund	OVER EXPLOITED
235	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.11	Nalabund	OVER EXPLOITED
236	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.11	Nalabund	OVER EXPLOITED
237	THANDARAMPAT	TIRUVANNAMALAI	78.96	12.13	Nalabund	OVER EXPLOITED
238	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.10	Nalabund	OVER EXPLOITED
239	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.11	Nalabund	OVER EXPLOITED
240	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.12	Nalabund	OVER EXPLOITED
241	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.12	Nalabund	OVER EXPLOITED
242	THANDARAMPAT	TIRUVANNAMALAI	78.88	12.12	Nalabund	OVER EXPLOITED
243	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.08	Nalabund	OVER EXPLOITED
244	THANDARAMPAT	TIRUVANNAMALAI	78.87	12.14	Nalabund	OVER EXPLOITED
245	THANDARAMPAT	TIRUVANNAMALAI	78.86	12.15	Nalabund	OVER EXPLOITED
246	THANDARAMPAT	TIRUVANNAMALAI	78.88	12.15	Nalabund	OVER EXPLOITED
247	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.13	Nalabund	OVER EXPLOITED
248	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.12	Nalabund	OVER EXPLOITED
249	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.14	Nalabund	OVER EXPLOITED
250	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.14	Nalabund	OVER EXPLOITED
251	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.14	Nalabund	OVER EXPLOITED
252	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.16	Nalabund	OVER EXPLOITED
253	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.15	Nalabund	OVER EXPLOITED
254	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.16	Nalabund	OVER EXPLOITED
255	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.17	Nalabund	OVER EXPLOITED
256	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.17	Nalabund	OVER EXPLOITED
257	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.18	Nalabund	OVER EXPLOITED
258	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.16	Nalabund	OVER

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						EXPLOITED
259	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.14	Nalabund	OVER EXPLOITED
260	THANDARAMPAT	TIRUVANNAMALAI	78.86	12.12	Nalabund	OVER EXPLOITED
261	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.19	Nalabund	OVER EXPLOITED
262	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.10	Nalabund	OVER EXPLOITED
263	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.10	Nalabund	OVER EXPLOITED
264	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.11	Nalabund	OVER EXPLOITED
265	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.12	Nalabund	OVER EXPLOITED
266	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.11	Nalabund	OVER EXPLOITED
267	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.09	Nalabund	OVER EXPLOITED
268	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.15	Nalabund	OVER EXPLOITED
269	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.16	Nalabund	OVER EXPLOITED
270	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.20	Nalabund	OVER EXPLOITED
271	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.20	Nalabund	OVER EXPLOITED
272	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.20	Nalabund	OVER EXPLOITED
273	THANDARAMPAT	TIRUVANNAMALAI	78.87	12.19	Nalabund	OVER EXPLOITED
274	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.19	Nalabund	OVER EXPLOITED
275	THANDARAMPAT	TIRUVANNAMALAI	78.87	12.20	Nalabund	OVER EXPLOITED
276	THANDARAMPAT	TIRUVANNAMALAI	78.88	12.21	Nalabund	OVER EXPLOITED
277	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.23	Nalabund	OVER EXPLOITED
278	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.22	Nalabund	OVER EXPLOITED
279	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.22	Nalabund	OVER EXPLOITED
280	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.24	Nalabund	OVER EXPLOITED
281	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.22	Nalabund	OVER EXPLOITED
282	THANDARAMPAT	TIRUVANNAMALAI	78.96	12.24	Nalabund	OVER EXPLOITED
283	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.13	Only Recharge Shaft	OVER EXPLOITED
284	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.13	Only Recharge Shaft	OVER EXPLOITED
285	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.15	Only Recharge Shaft	OVER EXPLOITED
286	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.15	Only Recharge Shaft	OVER EXPLOITED
287	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.16	Only Recharge Shaft	OVER EXPLOITED
288	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.17	Only Recharge	OVER

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					Shaft	EXPLOITED
289	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.18	Only Recharge Shaft	OVER EXPLOITED
290	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.10	Only Recharge Shaft	OVER EXPLOITED
291	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.12	Only Recharge Shaft	OVER EXPLOITED
292	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.14	Only Recharge Shaft	OVER EXPLOITED
293	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.08	Only Recharge Shaft	OVER EXPLOITED
294	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.08	Only Recharge Shaft	OVER EXPLOITED
295	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.11	Only Recharge Shaft	OVER EXPLOITED
296	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.08	Only Recharge Shaft	OVER EXPLOITED
297	THANDARAMPAT	TIRUVANNAMALAI	78.87	12.12	Only Recharge Shaft	OVER EXPLOITED
298	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.21	Only Recharge Shaft	OVER EXPLOITED
299	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.21	Only Recharge Shaft	OVER EXPLOITED
300	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.21	Only Recharge Shaft	OVER EXPLOITED
301	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.21	Only Recharge Shaft	OVER EXPLOITED
302	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.20	Only Recharge Shaft	OVER EXPLOITED
303	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.21	Only Recharge Shaft	OVER EXPLOITED
304	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.21	Only Recharge Shaft	OVER EXPLOITED
305	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.20	Only Recharge Shaft	OVER EXPLOITED
306	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.20	Only Recharge Shaft	OVER EXPLOITED
307	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.21	Only Recharge Shaft	OVER EXPLOITED
308	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.20	Only Recharge Shaft	OVER EXPLOITED
309	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.20	Only Recharge Shaft	OVER EXPLOITED
310	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.23	Only Recharge Shaft	OVER EXPLOITED
311	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.22	Only Recharge Shaft	OVER EXPLOITED
312	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.23	Only Recharge Shaft	OVER EXPLOITED
313	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.23	Only Recharge Shaft	OVER EXPLOITED
314	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.22	Only Recharge Shaft	OVER EXPLOITED
315	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.22	Only Recharge Shaft	OVER EXPLOITED

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316	THANDARAMPAT	TIRUVANNAMALAI	78.96	12.23	Only Recharge Shaft	OVER EXPLOITED
317	THANDARAMPAT	TIRUVANNAMALAI	78.96	12.23	Only Recharge Shaft	OVER EXPLOITED
318	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.20	Only Recharge Shaft	OVER EXPLOITED
319	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.10	Recharge shaft with Revival	OVER EXPLOITED
320	THANDARAMPAT	TIRUVANNAMALAI	78.93	12.12	Recharge shaft with Revival	OVER EXPLOITED
321	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.08	Recharge shaft with Revival	OVER EXPLOITED
322	THANDARAMPAT	TIRUVANNAMALAI	78.92	12.13	Recharge shaft with Revival	OVER EXPLOITED
323	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.15	Recharge shaft with Revival	OVER EXPLOITED
324	THANDARAMPAT	TIRUVANNAMALAI	78.95	12.17	Recharge shaft with Revival	OVER EXPLOITED
325	THANDARAMPAT	TIRUVANNAMALAI	78.94	12.20	Recharge shaft with Revival	OVER EXPLOITED
326	THANDARAMPAT	TIRUVANNAMALAI	78.91	12.21	Recharge shaft with Revival	OVER EXPLOITED
327	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.21	Recharge shaft with Revival	OVER EXPLOITED
328	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.21	Recharge shaft with Revival	OVER EXPLOITED
329	THANDARAMPAT	TIRUVANNAMALAI	78.88	12.21	Recharge shaft with Revival	OVER EXPLOITED
330	THANDARAMPAT	TIRUVANNAMALAI	78.90	12.22	Recharge shaft with Revival	OVER EXPLOITED
331	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.24	Recharge shaft with Revival	OVER EXPLOITED
332	THANDARAMPAT	TIRUVANNAMALAI	78.89	12.24	Recharge shaft with Revival	OVER EXPLOITED
333	THANIPADI	TIRUVANNAMALAI	78.85	12.13	Checkdam	CRITICAL
334	THANIPADI	TIRUVANNAMALAI	78.86	12.10	Checkdam	CRITICAL
335	THANIPADI	TIRUVANNAMALAI	78.82	12.11	Checkdam	CRITICAL
336	THANIPADI	TIRUVANNAMALAI	78.81	12.11	Checkdam	CRITICAL
337	THANIPADI	TIRUVANNAMALAI	78.79	12.10	Checkdam	CRITICAL
338	THANIPADI	TIRUVANNAMALAI	78.84	12.08	Checkdam	CRITICAL
339	THANIPADI	TIRUVANNAMALAI	78.84	12.05	Checkdam	CRITICAL
340	THANIPADI	TIRUVANNAMALAI	78.83	12.06	Checkdam	CRITICAL
341	THANIPADI	TIRUVANNAMALAI	78.82	12.05	Checkdam	CRITICAL
342	THANIPADI	TIRUVANNAMALAI	78.79	12.05	Checkdam	CRITICAL
343	THANIPADI	TIRUVANNAMALAI	78.80	12.09	Checkdam	CRITICAL
344	THANIPADI	TIRUVANNAMALAI	78.81	12.06	Checkdam	CRITICAL
345	THANIPADI	TIRUVANNAMALAI	78.83	12.04	Checkdam	CRITICAL
346	THANIPADI	TIRUVANNAMALAI	78.77	12.06	Checkdam	CRITICAL
347	THANIPADI	TIRUVANNAMALAI	78.75	12.06	Checkdam	CRITICAL
348	THANIPADI	TIRUVANNAMALAI	78.76	12.09	Checkdam	CRITICAL

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349	THANIPADI	TIRUVANNAMALAI	78.80	12.08	Checkdam	CRITICAL
350	THANIPADI	TIRUVANNAMALAI	78.87	12.10	Checkdam	CRITICAL
351	THANIPADI	TIRUVANNAMALAI	78.88	12.08	Nalabund	CRITICAL
352	THANIPADI	TIRUVANNAMALAI	78.87	12.09	Nalabund	CRITICAL
353	THANIPADI	TIRUVANNAMALAI	78.89	12.10	Nalabund	CRITICAL
354	THANIPADI	TIRUVANNAMALAI	78.89	12.08	Nalabund	CRITICAL
355	THANIPADI	TIRUVANNAMALAI	78.88	12.09	Nalabund	CRITICAL
356	THANIPADI	TIRUVANNAMALAI	78.84	12.14	Nalabund	CRITICAL
357	THANIPADI	TIRUVANNAMALAI	78.85	12.11	Nalabund	CRITICAL
358	THANIPADI	TIRUVANNAMALAI	78.85	12.10	Nalabund	CRITICAL
359	THANIPADI	TIRUVANNAMALAI	78.84	12.12	Nalabund	CRITICAL
360	THANIPADI	TIRUVANNAMALAI	78.84	12.14	Nalabund	CRITICAL
361	THANIPADI	TIRUVANNAMALAI	78.87	12.10	Nalabund	CRITICAL
362	THANIPADI	TIRUVANNAMALAI	78.85	12.14	Nalabund	CRITICAL
363	THANIPADI	TIRUVANNAMALAI	78.83	12.12	Nalabund	CRITICAL
364	THANIPADI	TIRUVANNAMALAI	78.83	12.13	Nalabund	CRITICAL
365	THANIPADI	TIRUVANNAMALAI	78.83	12.12	Nalabund	CRITICAL
366	THANIPADI	TIRUVANNAMALAI	78.89	12.11	Nalabund	CRITICAL
367	THANIPADI	TIRUVANNAMALAI	78.82	12.12	Nalabund	CRITICAL
368	THANIPADI	TIRUVANNAMALAI	78.82	12.11	Nalabund	CRITICAL
369	THANIPADI	TIRUVANNAMALAI	78.82	12.11	Nalabund	CRITICAL
370	THANIPADI	TIRUVANNAMALAI	78.81	12.11	Nalabund	CRITICAL
371	THANIPADI	TIRUVANNAMALAI	78.80	12.11	Nalabund	CRITICAL
372	THANIPADI	TIRUVANNAMALAI	78.79	12.11	Nalabund	CRITICAL
373	THANIPADI	TIRUVANNAMALAI	78.80	12.11	Nalabund	CRITICAL
374	THANIPADI	TIRUVANNAMALAI	78.78	12.11	Nalabund	CRITICAL
375	THANIPADI	TIRUVANNAMALAI	78.85	12.13	Nalabund	CRITICAL
376	THANIPADI	TIRUVANNAMALAI	78.78	12.10	Nalabund	CRITICAL
377	THANIPADI	TIRUVANNAMALAI	78.75	12.11	Nalabund	CRITICAL
378	THANIPADI	TIRUVANNAMALAI	78.76	12.11	Nalabund	CRITICAL
379	THANIPADI	TIRUVANNAMALAI	78.76	12.11	Nalabund	CRITICAL
380	THANIPADI	TIRUVANNAMALAI	78.76	12.10	Nalabund	CRITICAL
381	THANIPADI	TIRUVANNAMALAI	78.75	12.11	Nalabund	CRITICAL
382	THANIPADI	TIRUVANNAMALAI	78.74	12.11	Nalabund	CRITICAL
383	THANIPADI	TIRUVANNAMALAI	78.74	12.10	Nalabund	CRITICAL
384	THANIPADI	TIRUVANNAMALAI	78.75	12.08	Nalabund	CRITICAL
385	THANIPADI	TIRUVANNAMALAI	78.76	12.10	Nalabund	CRITICAL
386	THANIPADI	TIRUVANNAMALAI	78.74	12.09	Nalabund	CRITICAL
387	THANIPADI	TIRUVANNAMALAI	78.73	12.08	Nalabund	CRITICAL
388	THANIPADI	TIRUVANNAMALAI	78.75	12.08	Nalabund	CRITICAL
389	THANIPADI	TIRUVANNAMALAI	78.75	12.07	Nalabund	CRITICAL
390	THANIPADI	TIRUVANNAMALAI	78.74	12.06	Nalabund	CRITICAL
391	THANIPADI	TIRUVANNAMALAI	78.74	12.06	Nalabund	CRITICAL
392	THANIPADI	TIRUVANNAMALAI	78.75	12.05	Nalabund	CRITICAL
393	THANIPADI	TIRUVANNAMALAI	78.74	12.05	Nalabund	CRITICAL
394	THANIPADI	TIRUVANNAMALAI	78.74	12.04	Nalabund	CRITICAL
395	THANIPADI	TIRUVANNAMALAI	78.74	12.03	Nalabund	CRITICAL
396	THANIPADI	TIRUVANNAMALAI	78.75	12.02	Nalabund	CRITICAL
397	THANIPADI	TIRUVANNAMALAI	78.75	12.02	Nalabund	CRITICAL

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398	THANIPADI	TIRUVANNAMALAI	78.75	12.05	Nalabund	CRITICAL
399	THANIPADI	TIRUVANNAMALAI	78.76	12.05	Nalabund	CRITICAL
400	THANIPADI	TIRUVANNAMALAI	78.77	12.04	Nalabund	CRITICAL
401	THANIPADI	TIRUVANNAMALAI	78.78	12.03	Nalabund	CRITICAL
402	THANIPADI	TIRUVANNAMALAI	78.78	12.04	Nalabund	CRITICAL
403	THANIPADI	TIRUVANNAMALAI	78.80	12.04	Nalabund	CRITICAL
404	THANIPADI	TIRUVANNAMALAI	78.80	12.04	Nalabund	CRITICAL
405	THANIPADI	TIRUVANNAMALAI	78.81	12.04	Nalabund	CRITICAL
406	THANIPADI	TIRUVANNAMALAI	78.79	12.05	Nalabund	CRITICAL
407	THANIPADI	TIRUVANNAMALAI	78.78	12.05	Nalabund	CRITICAL
408	THANIPADI	TIRUVANNAMALAI	78.79	12.05	Nalabund	CRITICAL
409	THANIPADI	TIRUVANNAMALAI	78.82	12.03	Nalabund	CRITICAL
410	THANIPADI	TIRUVANNAMALAI	78.82	12.04	Nalabund	CRITICAL
411	THANIPADI	TIRUVANNAMALAI	78.82	12.03	Nalabund	CRITICAL
412	THANIPADI	TIRUVANNAMALAI	78.83	12.03	Nalabund	CRITICAL
413	THANIPADI	TIRUVANNAMALAI	78.83	12.04	Nalabund	CRITICAL
414	THANIPADI	TIRUVANNAMALAI	78.85	12.05	Nalabund	CRITICAL
415	THANIPADI	TIRUVANNAMALAI	78.86	12.06	Nalabund	CRITICAL
416	THANIPADI	TIRUVANNAMALAI	78.82	12.05	Nalabund	CRITICAL
417	THANIPADI	TIRUVANNAMALAI	78.81	12.05	Nalabund	CRITICAL
418	THANIPADI	TIRUVANNAMALAI	78.85	12.07	Nalabund	CRITICAL
419	THANIPADI	TIRUVANNAMALAI	78.82	12.07	Nalabund	CRITICAL
420	THANIPADI	TIRUVANNAMALAI	78.82	12.08	Nalabund	CRITICAL
421	THANIPADI	TIRUVANNAMALAI	78.84	12.07	Nalabund	CRITICAL
422	THANIPADI	TIRUVANNAMALAI	78.81	12.09	Nalabund	CRITICAL
423	THANIPADI	TIRUVANNAMALAI	78.84	12.08	Nalabund	CRITICAL
424	THANIPADI	TIRUVANNAMALAI	78.82	12.10	Nalabund	CRITICAL
425	THANIPADI	TIRUVANNAMALAI	78.77	12.07	Nalabund	CRITICAL
426	THANIPADI	TIRUVANNAMALAI	78.77	12.09	Nalabund	CRITICAL
427	THANIPADI	TIRUVANNAMALAI	78.77	12.08	Nalabund	CRITICAL
428	THANIPADI	TIRUVANNAMALAI	78.83	12.06	Nalabund	CRITICAL
429	THANIPADI	TIRUVANNAMALAI	78.84	12.08	Nalabund	CRITICAL
430	THANIPADI	TIRUVANNAMALAI	78.84	12.06	Nalabund	CRITICAL
431	THANIPADI	TIRUVANNAMALAI	78.84	12.13	Only Recharge Shaft	CRITICAL
432	THANIPADI	TIRUVANNAMALAI	78.84	12.12	Only Recharge Shaft	CRITICAL
433	THANIPADI	TIRUVANNAMALAI	78.81	12.09	Only Recharge Shaft	CRITICAL
434	THANIPADI	TIRUVANNAMALAI	78.85	12.08	Only Recharge Shaft	CRITICAL
435	THANIPADI	TIRUVANNAMALAI	78.85	12.08	Only Recharge Shaft	CRITICAL
436	THANIPADI	TIRUVANNAMALAI	78.78	12.10	Only Recharge Shaft	CRITICAL
437	THANIPADI	TIRUVANNAMALAI	78.78	12.09	Only Recharge Shaft	CRITICAL
438	THANIPADI	TIRUVANNAMALAI	78.82	12.06	Only Recharge Shaft	CRITICAL
439	THANIPADI	TIRUVANNAMALAI	78.83	12.04	Only Recharge Shaft	CRITICAL

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440	THANIPADI	TIRUVANNAMALAI	78.81	12.09	Only Recharge Shaft	CRITICAL
441	THANIPADI	TIRUVANNAMALAI	78.74	12.08	Only Recharge Shaft	CRITICAL
442	THANIPADI	TIRUVANNAMALAI	78.75	12.06	Only Recharge Shaft	CRITICAL
443	THANIPADI	TIRUVANNAMALAI	78.76	12.06	Only Recharge Shaft	CRITICAL
444	THANIPADI	TIRUVANNAMALAI	78.89	12.10	Recharge shaft with Revival	CRITICAL
445	THANIPADI	TIRUVANNAMALAI	78.85	12.12	Recharge shaft with Revival	CRITICAL
446	THANIPADI	TIRUVANNAMALAI	78.88	12.08	Recharge shaft with Revival	CRITICAL
447	THANIPADI	TIRUVANNAMALAI	78.75	12.10	Recharge shaft with Revival	CRITICAL
448	THANIPADI	TIRUVANNAMALAI	78.76	12.10	Recharge shaft with Revival	CRITICAL
449	THANIPADI	TIRUVANNAMALAI	78.77	12.08	Recharge shaft with Revival	CRITICAL
450	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.11	Checkdam	CRITICAL
451	THATCHAMPATTU	TIRUVANNAMALAI	79.04	12.06	Checkdam	CRITICAL
452	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.12	Checkdam	CRITICAL
453	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.11	Checkdam	CRITICAL
454	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.14	Checkdam	CRITICAL
455	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.07	Checkdam	CRITICAL
456	THATCHAMPATTU	TIRUVANNAMALAI	79.12	12.09	Checkdam	CRITICAL
457	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.11	Nalabund	CRITICAL
458	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.11	Nalabund	CRITICAL
459	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.11	Nalabund	CRITICAL
460	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.10	Nalabund	CRITICAL
461	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.09	Nalabund	CRITICAL
462	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.14	Nalabund	CRITICAL
463	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.13	Nalabund	CRITICAL
464	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.13	Nalabund	CRITICAL
465	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.14	Nalabund	CRITICAL
466	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.13	Nalabund	CRITICAL
467	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.14	Nalabund	CRITICAL
468	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.14	Nalabund	CRITICAL
469	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.13	Nalabund	CRITICAL
470	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.13	Nalabund	CRITICAL
471	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.12	Nalabund	CRITICAL
472	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.11	Nalabund	CRITICAL
473	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.10	Nalabund	CRITICAL
474	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.10	Nalabund	CRITICAL
475	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.09	Nalabund	CRITICAL
476	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.08	Nalabund	CRITICAL
477	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.06	Nalabund	CRITICAL
478	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.07	Nalabund	CRITICAL
479	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.11	Nalabund	CRITICAL

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480	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.06	Nalabund	CRITICAL
481	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.11	Nalabund	CRITICAL
482	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.10	Nalabund	CRITICAL
483	THATCHAMPATTU	TIRUVANNAMALAI	79.04	12.09	Nalabund	CRITICAL
484	THATCHAMPATTU	TIRUVANNAMALAI	79.04	12.08	Nalabund	CRITICAL
485	THATCHAMPATTU	TIRUVANNAMALAI	79.04	12.08	Nalabund	CRITICAL
486	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.08	Nalabund	CRITICAL
487	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.07	Nalabund	CRITICAL
488	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.09	Nalabund	CRITICAL
489	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.09	Nalabund	CRITICAL
490	THATCHAMPATTU	TIRUVANNAMALAI	79.04	12.05	Nalabund	CRITICAL
491	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.06	Nalabund	CRITICAL
492	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.05	Nalabund	CRITICAL
493	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.04	Nalabund	CRITICAL
494	THATCHAMPATTU	TIRUVANNAMALAI	79.12	12.05	Nalabund	CRITICAL
495	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.07	Nalabund	CRITICAL
496	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.04	Nalabund	CRITICAL
497	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.10	Nalabund	CRITICAL
498	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.10	Only Recharge Shaft	CRITICAL
499	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.10	Only Recharge Shaft	CRITICAL
500	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.09	Only Recharge Shaft	CRITICAL
501	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.09	Only Recharge Shaft	CRITICAL
502	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.10	Only Recharge Shaft	CRITICAL
503	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.09	Only Recharge Shaft	CRITICAL
504	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.09	Only Recharge Shaft	CRITICAL
505	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.12	Only Recharge Shaft	CRITICAL
506	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.11	Only Recharge Shaft	CRITICAL
507	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.11	Only Recharge Shaft	CRITICAL
508	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.10	Only Recharge Shaft	CRITICAL
509	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.13	Only Recharge Shaft	CRITICAL
510	THATCHAMPATTU	TIRUVANNAMALAI	79.07	12.13	Only Recharge Shaft	CRITICAL
511	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.13	Only Recharge Shaft	CRITICAL
512	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.12	Only Recharge Shaft	CRITICAL
513	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.11	Only Recharge Shaft	CRITICAL
514	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.10	Only Recharge Shaft	CRITICAL
515	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.06	Only Recharge	CRITICAL

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					Shaft	
516	THATCHAMPATTU	TIRUVANNAMALAI	79.12	12.10	Only Recharge Shaft	CRITICAL
517	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.08	Only Recharge Shaft	CRITICAL
518	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.07	Only Recharge Shaft	CRITICAL
519	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.08	Only Recharge Shaft	CRITICAL
520	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.07	Only Recharge Shaft	CRITICAL
521	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.06	Only Recharge Shaft	CRITICAL
522	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.05	Only Recharge Shaft	CRITICAL
523	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.05	Only Recharge Shaft	CRITICAL
524	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.05	Only Recharge Shaft	CRITICAL
525	THATCHAMPATTU	TIRUVANNAMALAI	79.05	12.04	Only Recharge Shaft	CRITICAL
526	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.06	Only Recharge Shaft	CRITICAL
527	THATCHAMPATTU	TIRUVANNAMALAI	79.06	12.05	Only Recharge Shaft	CRITICAL
528	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.09	Only Recharge Shaft	CRITICAL
529	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.09	Only Recharge Shaft	CRITICAL
530	THATCHAMPATTU	TIRUVANNAMALAI	79.08	12.09	Only Recharge Shaft	CRITICAL
531	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.05	Only Recharge Shaft	CRITICAL
532	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.05	Only Recharge Shaft	CRITICAL
533	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.04	Only Recharge Shaft	CRITICAL
534	THATCHAMPATTU	TIRUVANNAMALAI	79.11	12.04	Only Recharge Shaft	CRITICAL
535	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.04	Only Recharge Shaft	CRITICAL
536	THATCHAMPATTU	TIRUVANNAMALAI	79.09	12.04	Only Recharge Shaft	CRITICAL
537	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.03	Only Recharge Shaft	CRITICAL
538	THATCHAMPATTU	TIRUVANNAMALAI	79.13	12.04	Only Recharge Shaft	CRITICAL
539	THATCHAMPATTU	TIRUVANNAMALAI	79.10	12.03	Only Recharge Shaft	CRITICAL
540	THATCHAMPATTU	TIRUVANNAMALAI	79.12	12.07	Recharge shaft with Revival	CRITICAL
541	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.10	Recharge shaft with Revival	CRITICAL
542	THATCHAMPATTU	TIRUVANNAMALAI	79.03	12.10	Recharge shaft with Revival	CRITICAL

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543	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.30	Checkdam	OVER EXPLOITED
544	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.34	Checkdam	OVER EXPLOITED
545	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.30	Checkdam	OVER EXPLOITED
546	THURINJAPURAM	TIRUVANNAMALAI	79.05	12.29	Nalabund	OVER EXPLOITED
547	THURINJAPURAM	TIRUVANNAMALAI	79.05	12.29	Nalabund	OVER EXPLOITED
548	THURINJAPURAM	TIRUVANNAMALAI	79.05	12.30	Nalabund	OVER EXPLOITED
549	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.30	Nalabund	OVER EXPLOITED
550	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.31	Nalabund	OVER EXPLOITED
551	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.32	Nalabund	OVER EXPLOITED
552	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.34	Nalabund	OVER EXPLOITED
553	THURINJAPURAM	TIRUVANNAMALAI	79.07	12.35	Nalabund	OVER EXPLOITED
554	THURINJAPURAM	TIRUVANNAMALAI	79.08	12.34	Nalabund	OVER EXPLOITED
555	THURINJAPURAM	TIRUVANNAMALAI	79.08	12.34	Nalabund	OVER EXPLOITED
556	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.34	Nalabund	OVER EXPLOITED
557	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.33	Nalabund	OVER EXPLOITED
558	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.34	Nalabund	OVER EXPLOITED
559	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.32	Nalabund	OVER EXPLOITED
560	THURINJAPURAM	TIRUVANNAMALAI	79.14	12.34	Nalabund	OVER EXPLOITED
561	THURINJAPURAM	TIRUVANNAMALAI	79.15	12.34	Nalabund	OVER EXPLOITED
562	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.30	Nalabund	OVER EXPLOITED
563	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.29	Nalabund	OVER EXPLOITED
564	THURINJAPURAM	TIRUVANNAMALAI	79.09	12.30	Nalabund	OVER EXPLOITED
565	THURINJAPURAM	TIRUVANNAMALAI	79.08	12.31	Nalabund	OVER EXPLOITED
566	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.29	Nalabund	OVER EXPLOITED
567	THURINJAPURAM	TIRUVANNAMALAI	79.05	12.29	Only Recharge Shaft	OVER EXPLOITED
568	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.29	Only Recharge Shaft	OVER EXPLOITED
569	THURINJAPURAM	TIRUVANNAMALAI	79.07	12.30	Only Recharge Shaft	OVER EXPLOITED
570	THURINJAPURAM	TIRUVANNAMALAI	79.07	12.32	Only Recharge Shaft	OVER EXPLOITED
571	THURINJAPURAM	TIRUVANNAMALAI	79.07	12.34	Only Recharge Shaft	OVER EXPLOITED
572	THURINJAPURAM	TIRUVANNAMALAI	79.07	12.33	Only Recharge Shaft	OVER EXPLOITED

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573	THURINJAPURAM	TIRUVANNAMALAI	79.08	12.33	Only Recharge Shaft	OVER EXPLOITED
574	THURINJAPURAM	TIRUVANNAMALAI	79.09	12.34	Only Recharge Shaft	OVER EXPLOITED
575	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.33	Only Recharge Shaft	OVER EXPLOITED
576	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.32	Only Recharge Shaft	OVER EXPLOITED
577	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.31	Only Recharge Shaft	OVER EXPLOITED
578	THURINJAPURAM	TIRUVANNAMALAI	79.13	12.33	Only Recharge Shaft	OVER EXPLOITED
579	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.30	Only Recharge Shaft	OVER EXPLOITED
580	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.30	Only Recharge Shaft	OVER EXPLOITED
581	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.31	Only Recharge Shaft	OVER EXPLOITED
582	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.32	Only Recharge Shaft	OVER EXPLOITED
583	THURINJAPURAM	TIRUVANNAMALAI	79.10	12.29	Only Recharge Shaft	OVER EXPLOITED
584	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.29	Only Recharge Shaft	OVER EXPLOITED
585	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.30	Only Recharge Shaft	OVER EXPLOITED
586	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.32	Only Recharge Shaft	OVER EXPLOITED
587	THURINJAPURAM	TIRUVANNAMALAI	79.14	12.33	Only Recharge Shaft	OVER EXPLOITED
588	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.33	Only Recharge Shaft	OVER EXPLOITED
589	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.33	Only Recharge Shaft	OVER EXPLOITED
590	THURINJAPURAM	TIRUVANNAMALAI	79.13	12.33	Only Recharge Shaft	OVER EXPLOITED
591	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.36	Only Recharge Shaft	OVER EXPLOITED
592	THURINJAPURAM	TIRUVANNAMALAI	79.14	12.36	Only Recharge Shaft	OVER EXPLOITED
593	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.36	Only Recharge Shaft	OVER EXPLOITED
594	THURINJAPURAM	TIRUVANNAMALAI	79.13	12.36	Only Recharge Shaft	OVER EXPLOITED
595	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.36	Only Recharge Shaft	OVER EXPLOITED
596	THURINJAPURAM	TIRUVANNAMALAI	79.11	12.38	Only Recharge Shaft	OVER EXPLOITED
597	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.38	Only Recharge Shaft	OVER EXPLOITED
598	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.38	Only Recharge Shaft	OVER EXPLOITED
599	THURINJAPURAM	TIRUVANNAMALAI	79.13	12.38	Only Recharge Shaft	OVER EXPLOITED
600	THURINJAPURAM	TIRUVANNAMALAI	79.13	12.37	Only Recharge	OVER EXPLOITED

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					Shaft	
601	THURINJAPURAM	TIRUVANNAMALAI	79.05	12.33	Only Recharge Shaft	OVER EXPLOITED
602	THURINJAPURAM	TIRUVANNAMALAI	79.06	12.32	Only Recharge Shaft	OVER EXPLOITED
603	THURINJAPURAM	TIRUVANNAMALAI	79.07	12.32	Only Recharge Shaft	OVER EXPLOITED
604	THURINJAPURAM	TIRUVANNAMALAI	79.08	12.31	Only Recharge Shaft	OVER EXPLOITED
605	THURINJAPURAM	TIRUVANNAMALAI	79.05	12.34	Only Recharge Shaft	OVER EXPLOITED
606	THURINJAPURAM	TIRUVANNAMALAI	79.08	12.35	Recharge shaft with Revival	OVER EXPLOITED
607	THURINJAPURAM	TIRUVANNAMALAI	79.12	12.34	Recharge shaft with Revival	OVER EXPLOITED
608	THURINJAPURAM	TIRUVANNAMALAI	79.14	12.33	Recharge shaft with Revival	OVER EXPLOITED
609	VANAPURAM	TIRUVANNAMALAI	79.01	12.11	Checkdam	CRITICAL
610	VANAPURAM	TIRUVANNAMALAI	79.01	12.13	Checkdam	CRITICAL
611	VANAPURAM	TIRUVANNAMALAI	79.00	12.15	Checkdam	CRITICAL
612	VANAPURAM	TIRUVANNAMALAI	78.98	12.08	Checkdam	CRITICAL
613	VANAPURAM	TIRUVANNAMALAI	78.96	12.09	Checkdam	CRITICAL
614	VANAPURAM	TIRUVANNAMALAI	78.94	12.05	Checkdam	CRITICAL
615	VANAPURAM	TIRUVANNAMALAI	78.90	12.06	Checkdam	CRITICAL
616	VANAPURAM	TIRUVANNAMALAI	79.00	12.18	Checkdam	CRITICAL
617	VANAPURAM	TIRUVANNAMALAI	78.95	12.19	Checkdam	CRITICAL
618	VANAPURAM	TIRUVANNAMALAI	79.03	12.13	Nalabund	CRITICAL
619	VANAPURAM	TIRUVANNAMALAI	79.03	12.12	Nalabund	CRITICAL
620	VANAPURAM	TIRUVANNAMALAI	79.03	12.11	Nalabund	CRITICAL
621	VANAPURAM	TIRUVANNAMALAI	79.03	12.15	Nalabund	CRITICAL
622	VANAPURAM	TIRUVANNAMALAI	79.03	12.13	Nalabund	CRITICAL
623	VANAPURAM	TIRUVANNAMALAI	79.02	12.14	Nalabund	CRITICAL
624	VANAPURAM	TIRUVANNAMALAI	79.01	12.15	Nalabund	CRITICAL
625	VANAPURAM	TIRUVANNAMALAI	79.01	12.14	Nalabund	CRITICAL
626	VANAPURAM	TIRUVANNAMALAI	79.01	12.10	Nalabund	CRITICAL
627	VANAPURAM	TIRUVANNAMALAI	79.02	12.11	Nalabund	CRITICAL
628	VANAPURAM	TIRUVANNAMALAI	79.00	12.15	Nalabund	CRITICAL
629	VANAPURAM	TIRUVANNAMALAI	79.00	12.16	Nalabund	CRITICAL
630	VANAPURAM	TIRUVANNAMALAI	79.00	12.15	Nalabund	CRITICAL
631	VANAPURAM	TIRUVANNAMALAI	79.00	12.14	Nalabund	CRITICAL
632	VANAPURAM	TIRUVANNAMALAI	79.00	12.13	Nalabund	CRITICAL
633	VANAPURAM	TIRUVANNAMALAI	79.00	12.12	Nalabund	CRITICAL
634	VANAPURAM	TIRUVANNAMALAI	78.99	12.11	Nalabund	CRITICAL
635	VANAPURAM	TIRUVANNAMALAI	78.99	12.10	Nalabund	CRITICAL
636	VANAPURAM	TIRUVANNAMALAI	78.99	12.10	Nalabund	CRITICAL
637	VANAPURAM	TIRUVANNAMALAI	78.97	12.12	Nalabund	CRITICAL
638	VANAPURAM	TIRUVANNAMALAI	78.96	12.10	Nalabund	CRITICAL
639	VANAPURAM	TIRUVANNAMALAI	78.96	12.10	Nalabund	CRITICAL
640	VANAPURAM	TIRUVANNAMALAI	78.97	12.09	Nalabund	CRITICAL
641	VANAPURAM	TIRUVANNAMALAI	78.98	12.09	Nalabund	CRITICAL

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642	VANAPURAM	TIRUVANNAMALAI	78.99	12.07	Nalabund	CRITICAL
643	VANAPURAM	TIRUVANNAMALAI	78.98	12.08	Nalabund	CRITICAL
644	VANAPURAM	TIRUVANNAMALAI	79.00	12.07	Nalabund	CRITICAL
645	VANAPURAM	TIRUVANNAMALAI	79.01	12.09	Nalabund	CRITICAL
646	VANAPURAM	TIRUVANNAMALAI	79.02	12.09	Nalabund	CRITICAL
647	VANAPURAM	TIRUVANNAMALAI	78.96	12.10	Nalabund	CRITICAL
648	VANAPURAM	TIRUVANNAMALAI	78.95	12.08	Nalabund	CRITICAL
649	VANAPURAM	TIRUVANNAMALAI	78.96	12.07	Nalabund	CRITICAL
650	VANAPURAM	TIRUVANNAMALAI	79.02	12.07	Nalabund	CRITICAL
651	VANAPURAM	TIRUVANNAMALAI	79.03	12.07	Nalabund	CRITICAL
652	VANAPURAM	TIRUVANNAMALAI	79.03	12.07	Nalabund	CRITICAL
653	VANAPURAM	TIRUVANNAMALAI	78.92	12.05	Nalabund	CRITICAL
654	VANAPURAM	TIRUVANNAMALAI	78.93	12.05	Nalabund	CRITICAL
655	VANAPURAM	TIRUVANNAMALAI	78.94	12.05	Nalabund	CRITICAL
656	VANAPURAM	TIRUVANNAMALAI	78.93	12.05	Nalabund	CRITICAL
657	VANAPURAM	TIRUVANNAMALAI	78.99	12.07	Nalabund	CRITICAL
658	VANAPURAM	TIRUVANNAMALAI	78.89	12.06	Nalabund	CRITICAL
659	VANAPURAM	TIRUVANNAMALAI	78.90	12.06	Nalabund	CRITICAL
660	VANAPURAM	TIRUVANNAMALAI	78.91	12.07	Nalabund	CRITICAL
661	VANAPURAM	TIRUVANNAMALAI	78.93	12.03	Nalabund	CRITICAL
662	VANAPURAM	TIRUVANNAMALAI	78.94	12.04	Nalabund	CRITICAL
663	VANAPURAM	TIRUVANNAMALAI	79.00	12.07	Nalabund	CRITICAL
664	VANAPURAM	TIRUVANNAMALAI	79.01	12.11	Nalabund	CRITICAL
665	VANAPURAM	TIRUVANNAMALAI	78.95	12.20	Nalabund	CRITICAL
666	VANAPURAM	TIRUVANNAMALAI	78.95	12.20	Nalabund	CRITICAL
667	VANAPURAM	TIRUVANNAMALAI	78.95	12.19	Nalabund	CRITICAL
668	VANAPURAM	TIRUVANNAMALAI	78.97	12.20	Nalabund	CRITICAL
669	VANAPURAM	TIRUVANNAMALAI	78.97	12.19	Nalabund	CRITICAL
670	VANAPURAM	TIRUVANNAMALAI	79.00	12.20	Nalabund	CRITICAL
671	VANAPURAM	TIRUVANNAMALAI	79.00	12.19	Nalabund	CRITICAL
672	VANAPURAM	TIRUVANNAMALAI	79.01	12.20	Nalabund	CRITICAL
673	VANAPURAM	TIRUVANNAMALAI	79.01	12.18	Nalabund	CRITICAL
674	VANAPURAM	TIRUVANNAMALAI	79.02	12.10	Only Recharge Shaft	CRITICAL
675	VANAPURAM	TIRUVANNAMALAI	79.00	12.13	Only Recharge Shaft	CRITICAL
676	VANAPURAM	TIRUVANNAMALAI	79.03	12.14	Only Recharge Shaft	CRITICAL
677	VANAPURAM	TIRUVANNAMALAI	79.02	12.11	Only Recharge Shaft	CRITICAL
678	VANAPURAM	TIRUVANNAMALAI	79.02	12.11	Only Recharge Shaft	CRITICAL
679	VANAPURAM	TIRUVANNAMALAI	79.02	12.09	Only Recharge Shaft	CRITICAL
680	VANAPURAM	TIRUVANNAMALAI	79.02	12.08	Only Recharge Shaft	CRITICAL
681	VANAPURAM	TIRUVANNAMALAI	79.01	12.14	Only Recharge Shaft	CRITICAL
682	VANAPURAM	TIRUVANNAMALAI	79.00	12.14	Only Recharge Shaft	CRITICAL
683	VANAPURAM	TIRUVANNAMALAI	79.00	12.14	Only Recharge	CRITICAL

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					Shaft	
684	VANAPURAM	TIRUVANNAMALAI	78.99	12.08	Only Recharge Shaft	CRITICAL
685	VANAPURAM	TIRUVANNAMALAI	79.00	12.12	Only Recharge Shaft	CRITICAL
686	VANAPURAM	TIRUVANNAMALAI	79.00	12.11	Only Recharge Shaft	CRITICAL
687	VANAPURAM	TIRUVANNAMALAI	79.00	12.10	Only Recharge Shaft	CRITICAL
688	VANAPURAM	TIRUVANNAMALAI	79.00	12.09	Only Recharge Shaft	CRITICAL
689	VANAPURAM	TIRUVANNAMALAI	79.00	12.09	Only Recharge Shaft	CRITICAL
690	VANAPURAM	TIRUVANNAMALAI	78.99	12.09	Only Recharge Shaft	CRITICAL
691	VANAPURAM	TIRUVANNAMALAI	79.02	12.13	Only Recharge Shaft	CRITICAL
692	VANAPURAM	TIRUVANNAMALAI	78.96	12.10	Only Recharge Shaft	CRITICAL
693	VANAPURAM	TIRUVANNAMALAI	78.96	12.09	Only Recharge Shaft	CRITICAL
694	VANAPURAM	TIRUVANNAMALAI	78.97	12.09	Only Recharge Shaft	CRITICAL
695	VANAPURAM	TIRUVANNAMALAI	78.97	12.08	Only Recharge Shaft	CRITICAL
696	VANAPURAM	TIRUVANNAMALAI	78.95	12.08	Only Recharge Shaft	CRITICAL
697	VANAPURAM	TIRUVANNAMALAI	78.92	12.05	Only Recharge Shaft	CRITICAL
698	VANAPURAM	TIRUVANNAMALAI	78.91	12.07	Only Recharge Shaft	CRITICAL
699	VANAPURAM	TIRUVANNAMALAI	78.93	12.05	Only Recharge Shaft	CRITICAL
700	VANAPURAM	TIRUVANNAMALAI	78.94	12.06	Only Recharge Shaft	CRITICAL
701	VANAPURAM	TIRUVANNAMALAI	79.00	12.22	Only Recharge Shaft	CRITICAL
702	VANAPURAM	TIRUVANNAMALAI	79.01	12.21	Only Recharge Shaft	CRITICAL
703	VANAPURAM	TIRUVANNAMALAI	79.01	12.21	Only Recharge Shaft	CRITICAL
704	VANAPURAM	TIRUVANNAMALAI	78.99	12.11	Recharge shaft with Revival	CRITICAL
705	VANAPURAM	TIRUVANNAMALAI	79.03	12.07	Recharge shaft with Revival	CRITICAL
706	VANAPURAM	TIRUVANNAMALAI	79.01	12.11	Recharge shaft with Revival	CRITICAL
707	VANAPURAM	TIRUVANNAMALAI	78.97	12.08	Recharge shaft with Revival	CRITICAL
708	VERAIYUR	TIRUVANNAMALAI	79.18	12.07	Checkdam	OVER EXPLOITED
709	VERAIYUR	TIRUVANNAMALAI	79.15	12.13	Nalabund	OVER EXPLOITED
710	VERAIYUR	TIRUVANNAMALAI	79.18	12.14	Nalabund	OVER EXPLOITED

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711	VERAIYUR	TIRUVANNAMALAI	79.15	12.11	Nalabund	OVER EXPLOITED
712	VERAIYUR	TIRUVANNAMALAI	79.19	12.12	Nalabund	OVER EXPLOITED
713	VERAIYUR	TIRUVANNAMALAI	79.15	12.09	Nalabund	OVER EXPLOITED
714	VERAIYUR	TIRUVANNAMALAI	79.18	12.10	Nalabund	OVER EXPLOITED
715	VERAIYUR	TIRUVANNAMALAI	79.14	12.08	Nalabund	OVER EXPLOITED
716	VERAIYUR	TIRUVANNAMALAI	79.16	12.08	Nalabund	OVER EXPLOITED
717	VERAIYUR	TIRUVANNAMALAI	79.15	12.06	Nalabund	OVER EXPLOITED
718	VERAIYUR	TIRUVANNAMALAI	79.21	12.09	Nalabund	OVER EXPLOITED
719	VERAIYUR	TIRUVANNAMALAI	79.21	12.08	Nalabund	OVER EXPLOITED
720	VERAIYUR	TIRUVANNAMALAI	79.19	12.05	Nalabund	OVER EXPLOITED
721	VERAIYUR	TIRUVANNAMALAI	79.14	12.09	Nalabund	OVER EXPLOITED
722	VERAIYUR	TIRUVANNAMALAI	79.18	12.07	Nalabund	OVER EXPLOITED
723	VERAIYUR	TIRUVANNAMALAI	79.17	12.08	Nalabund	OVER EXPLOITED
724	VERAIYUR	TIRUVANNAMALAI	79.17	12.11	Nalabund	OVER EXPLOITED
725	VERAIYUR	TIRUVANNAMALAI	79.16	12.04	Nalabund	OVER EXPLOITED
726	VERAIYUR	TIRUVANNAMALAI	79.17	12.04	Nalabund	OVER EXPLOITED
727	VERAIYUR	TIRUVANNAMALAI	79.16	12.14	Only Recharge Shaft	OVER EXPLOITED
728	VERAIYUR	TIRUVANNAMALAI	79.18	12.14	Only Recharge Shaft	OVER EXPLOITED
729	VERAIYUR	TIRUVANNAMALAI	79.19	12.14	Only Recharge Shaft	OVER EXPLOITED
730	VERAIYUR	TIRUVANNAMALAI	79.19	12.14	Only Recharge Shaft	OVER EXPLOITED
731	VERAIYUR	TIRUVANNAMALAI	79.19	12.13	Only Recharge Shaft	OVER EXPLOITED
732	VERAIYUR	TIRUVANNAMALAI	79.19	12.13	Only Recharge Shaft	OVER EXPLOITED
733	VERAIYUR	TIRUVANNAMALAI	79.19	12.06	Only Recharge Shaft	OVER EXPLOITED
734	VERAIYUR	TIRUVANNAMALAI	79.18	12.12	Only Recharge Shaft	OVER EXPLOITED
735	VERAIYUR	TIRUVANNAMALAI	79.18	12.12	Only Recharge Shaft	OVER EXPLOITED
736	VERAIYUR	TIRUVANNAMALAI	79.17	12.12	Only Recharge Shaft	OVER EXPLOITED
737	VERAIYUR	TIRUVANNAMALAI	79.17	12.11	Only Recharge Shaft	OVER EXPLOITED
738	VERAIYUR	TIRUVANNAMALAI	79.18	12.11	Only Recharge Shaft	OVER EXPLOITED
739	VERAIYUR	TIRUVANNAMALAI	79.15	12.12	Only Recharge Shaft	OVER EXPLOITED

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740	VERAIYUR	TIRUVANNAMALAI	79.17	12.11	Only Recharge Shaft	OVER EXPLOITED
741	VERAIYUR	TIRUVANNAMALAI	79.17	12.11	Only Recharge Shaft	OVER EXPLOITED
742	VERAIYUR	TIRUVANNAMALAI	79.15	12.10	Only Recharge Shaft	OVER EXPLOITED
743	VERAIYUR	TIRUVANNAMALAI	79.15	12.10	Only Recharge Shaft	OVER EXPLOITED
744	VERAIYUR	TIRUVANNAMALAI	79.15	12.09	Only Recharge Shaft	OVER EXPLOITED
745	VERAIYUR	TIRUVANNAMALAI	79.15	12.09	Only Recharge Shaft	OVER EXPLOITED
746	VERAIYUR	TIRUVANNAMALAI	79.17	12.10	Only Recharge Shaft	OVER EXPLOITED
747	VERAIYUR	TIRUVANNAMALAI	79.18	12.09	Only Recharge Shaft	OVER EXPLOITED
748	VERAIYUR	TIRUVANNAMALAI	79.17	12.09	Only Recharge Shaft	OVER EXPLOITED
749	VERAIYUR	TIRUVANNAMALAI	79.16	12.09	Only Recharge Shaft	OVER EXPLOITED
750	VERAIYUR	TIRUVANNAMALAI	79.16	12.08	Only Recharge Shaft	OVER EXPLOITED
751	VERAIYUR	TIRUVANNAMALAI	79.17	12.09	Only Recharge Shaft	OVER EXPLOITED
752	VERAIYUR	TIRUVANNAMALAI	79.20	12.12	Only Recharge Shaft	OVER EXPLOITED
753	VERAIYUR	TIRUVANNAMALAI	79.18	12.08	Only Recharge Shaft	OVER EXPLOITED
754	VERAIYUR	TIRUVANNAMALAI	79.18	12.08	Only Recharge Shaft	OVER EXPLOITED
755	VERAIYUR	TIRUVANNAMALAI	79.19	12.08	Only Recharge Shaft	OVER EXPLOITED
756	VERAIYUR	TIRUVANNAMALAI	79.14	12.11	Only Recharge Shaft	OVER EXPLOITED
757	VERAIYUR	TIRUVANNAMALAI	79.13	12.10	Only Recharge Shaft	OVER EXPLOITED
758	VERAIYUR	TIRUVANNAMALAI	79.13	12.09	Only Recharge Shaft	OVER EXPLOITED
759	VERAIYUR	TIRUVANNAMALAI	79.13	12.09	Only Recharge Shaft	OVER EXPLOITED
760	VERAIYUR	TIRUVANNAMALAI	79.13	12.08	Only Recharge Shaft	OVER EXPLOITED
761	VERAIYUR	TIRUVANNAMALAI	79.13	12.09	Only Recharge Shaft	OVER EXPLOITED
762	VERAIYUR	TIRUVANNAMALAI	79.13	12.07	Only Recharge Shaft	OVER EXPLOITED
763	VERAIYUR	TIRUVANNAMALAI	79.13	12.07	Only Recharge Shaft	OVER EXPLOITED
764	VERAIYUR	TIRUVANNAMALAI	79.14	12.06	Only Recharge Shaft	OVER EXPLOITED
765	VERAIYUR	TIRUVANNAMALAI	79.14	12.06	Only Recharge Shaft	OVER EXPLOITED
766	VERAIYUR	TIRUVANNAMALAI	79.17	12.07	Only Recharge Shaft	OVER EXPLOITED
767	VERAIYUR	TIRUVANNAMALAI	79.18	12.06	Only Recharge	OVER EXPLOITED

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					Shaft	
768	VERAIYUR	TIRUVANNAMALAI	79.18	12.06	Only Recharge Shaft	OVER EXPLOITED
769	VERAIYUR	TIRUVANNAMALAI	79.15	12.12	Only Recharge Shaft	OVER EXPLOITED
770	VERAIYUR	TIRUVANNAMALAI	79.21	12.09	Only Recharge Shaft	OVER EXPLOITED
771	VERAIYUR	TIRUVANNAMALAI	79.21	12.09	Only Recharge Shaft	OVER EXPLOITED
772	VERAIYUR	TIRUVANNAMALAI	79.21	12.09	Only Recharge Shaft	OVER EXPLOITED
773	VERAIYUR	TIRUVANNAMALAI	79.17	12.05	Only Recharge Shaft	OVER EXPLOITED
774	VERAIYUR	TIRUVANNAMALAI	79.17	12.05	Only Recharge Shaft	OVER EXPLOITED
775	VERAIYUR	TIRUVANNAMALAI	79.16	12.05	Only Recharge Shaft	OVER EXPLOITED
776	VERAIYUR	TIRUVANNAMALAI	79.16	12.05	Only Recharge Shaft	OVER EXPLOITED
777	VERAIYUR	TIRUVANNAMALAI	79.17	12.04	Only Recharge Shaft	OVER EXPLOITED
778	VERAIYUR	TIRUVANNAMALAI	79.20	12.08	Only Recharge Shaft	OVER EXPLOITED
779	VERAIYUR	TIRUVANNAMALAI	79.17	12.04	Only Recharge Shaft	OVER EXPLOITED
780	VERAIYUR	TIRUVANNAMALAI	79.19	12.06	Only Recharge Shaft	OVER EXPLOITED
781	VERAIYUR	TIRUVANNAMALAI	79.21	12.07	Only Recharge Shaft	OVER EXPLOITED
782	VERAIYUR	TIRUVANNAMALAI	79.14	12.11	Recharge shaft with Revival	OVER EXPLOITED
783	VERAIYUR	TIRUVANNAMALAI	79.20	12.07	Recharge shaft with Revival	OVER EXPLOITED
784	VERAIYUR	TIRUVANNAMALAI	79.21	12.07	Recharge shaft with Revival	OVER EXPLOITED
785	Arasur(V)	VILUPPURAM	79.46	11.83	Checkdam	OVER EXPLOITED
786	Arasur(V)	VILUPPURAM	79.42	11.83	Checkdam	OVER EXPLOITED
787	Arasur(V)	VILUPPURAM	79.41	11.86	Checkdam	OVER EXPLOITED
788	Arasur(V)	VILUPPURAM	79.47	11.82	Checkdam	OVER EXPLOITED
789	Arasur(V)	VILUPPURAM	79.40	11.83	Checkdam	OVER EXPLOITED
790	Arasur(V)	VILUPPURAM	79.39	11.87	Nalabund	OVER EXPLOITED
791	Arasur(V)	VILUPPURAM	79.40	11.87	Nalabund	OVER EXPLOITED
792	Arasur(V)	VILUPPURAM	79.43	11.87	Nalabund	OVER EXPLOITED
793	Arasur(V)	VILUPPURAM	79.43	11.86	Nalabund	OVER EXPLOITED
794	Arasur(V)	VILUPPURAM	79.41	11.85	Nalabund	OVER EXPLOITED
795	Arasur(V)	VILUPPURAM	79.45	11.85	Nalabund	OVER EXPLOITED

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796	Arasur(V)	VILUPPURAM	79.40	11.85	Nalabund	OVER EXPLOITED
797	Arasur(V)	VILUPPURAM	79.44	11.84	Nalabund	OVER EXPLOITED
798	Arasur(V)	VILUPPURAM	79.39	11.85	Nalabund	OVER EXPLOITED
799	Arasur(V)	VILUPPURAM	79.46	11.83	Nalabund	OVER EXPLOITED
800	Arasur(V)	VILUPPURAM	79.47	11.82	Nalabund	OVER EXPLOITED
801	Arasur(V)	VILUPPURAM	79.48	11.81	Nalabund	OVER EXPLOITED
802	Arasur(V)	VILUPPURAM	79.40	11.81	Nalabund	OVER EXPLOITED
803	Arasur(V)	VILUPPURAM	79.43	11.80	Nalabund	OVER EXPLOITED
804	Arasur(V)	VILUPPURAM	79.44	11.82	Nalabund	OVER EXPLOITED
805	Arasur(V)	VILUPPURAM	79.45	11.81	Nalabund	OVER EXPLOITED
806	Arasur(V)	VILUPPURAM	79.45	11.85	Nalabund	OVER EXPLOITED
807	Arasur(V)	VILUPPURAM	79.38	11.82	Nalabund	OVER EXPLOITED
808	Arasur(V)	VILUPPURAM	79.41	11.81	Nalabund	OVER EXPLOITED
809	Arasur(V)	VILUPPURAM	79.38	11.82	Only Recharge Shaft	OVER EXPLOITED
810	Arasur(V)	VILUPPURAM	79.40	11.82	Only Recharge Shaft	OVER EXPLOITED
811	Arasur(V)	VILUPPURAM	79.38	11.81	Only Recharge Shaft	OVER EXPLOITED
812	Arasur(V)	VILUPPURAM	79.39	11.81	Only Recharge Shaft	OVER EXPLOITED
813	Arasur(V)	VILUPPURAM	79.39	11.82	Only Recharge Shaft	OVER EXPLOITED
814	Arasur(V)	VILUPPURAM	79.39	11.82	Only Recharge Shaft	OVER EXPLOITED
815	Arasur(V)	VILUPPURAM	79.39	11.82	Only Recharge Shaft	OVER EXPLOITED
816	Arasur(V)	VILUPPURAM	79.44	11.80	Only Recharge Shaft	OVER EXPLOITED
817	Arasur(V)	VILUPPURAM	79.40	11.82	Only Recharge Shaft	OVER EXPLOITED
818	Arasur(V)	VILUPPURAM	79.40	11.80	Only Recharge Shaft	OVER EXPLOITED
819	Arasur(V)	VILUPPURAM	79.40	11.81	Only Recharge Shaft	OVER EXPLOITED
820	Arasur(V)	VILUPPURAM	79.41	11.81	Only Recharge Shaft	OVER EXPLOITED
821	Arasur(V)	VILUPPURAM	79.41	11.81	Only Recharge Shaft	OVER EXPLOITED
822	Arasur(V)	VILUPPURAM	79.40	11.84	Only Recharge Shaft	OVER EXPLOITED
823	Arasur(V)	VILUPPURAM	79.40	11.84	Only Recharge Shaft	OVER EXPLOITED
824	Arasur(V)	VILUPPURAM	79.42	11.83	Only Recharge Shaft	OVER EXPLOITED

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825	Arasur(V)	VILUPPURAM	79.42	11.82	Only Recharge Shaft	OVER EXPLOITED
826	Arasur(V)	VILUPPURAM	79.42	11.82	Only Recharge Shaft	OVER EXPLOITED
827	Arasur(V)	VILUPPURAM	79.41	11.82	Only Recharge Shaft	OVER EXPLOITED
828	Arasur(V)	VILUPPURAM	79.42	11.81	Only Recharge Shaft	OVER EXPLOITED
829	Arasur(V)	VILUPPURAM	79.42	11.80	Only Recharge Shaft	OVER EXPLOITED
830	Arasur(V)	VILUPPURAM	79.44	11.80	Only Recharge Shaft	OVER EXPLOITED
831	Arasur(V)	VILUPPURAM	79.46	11.82	Only Recharge Shaft	OVER EXPLOITED
832	Arasur(V)	VILUPPURAM	79.46	11.81	Only Recharge Shaft	OVER EXPLOITED
833	Arasur(V)	VILUPPURAM	79.46	11.81	Only Recharge Shaft	OVER EXPLOITED
834	Arasur(V)	VILUPPURAM	79.43	11.85	Only Recharge Shaft	OVER EXPLOITED
835	Arasur(V)	VILUPPURAM	79.43	11.84	Only Recharge Shaft	OVER EXPLOITED
836	Arasur(V)	VILUPPURAM	79.44	11.85	Only Recharge Shaft	OVER EXPLOITED
837	Arasur(V)	VILUPPURAM	79.45	11.84	Only Recharge Shaft	OVER EXPLOITED
838	Arasur(V)	VILUPPURAM	79.46	11.84	Only Recharge Shaft	OVER EXPLOITED
839	Arasur(V)	VILUPPURAM	79.39	11.87	Only Recharge Shaft	OVER EXPLOITED
840	Arasur(V)	VILUPPURAM	79.40	11.86	Recharge shaft with Revival	OVER EXPLOITED
841	Arasur(V)	VILUPPURAM	79.41	11.85	Recharge shaft with Revival	OVER EXPLOITED
842	Arasur(V)	VILUPPURAM	79.42	11.84	Recharge shaft with Revival	OVER EXPLOITED
843	Arasur(V)	VILUPPURAM	79.44	11.83	Recharge shaft with Revival	OVER EXPLOITED
844	Arasur(V)	VILUPPURAM	79.42	11.83	Recharge shaft with Revival	OVER EXPLOITED
845	Arasur(V)	VILUPPURAM	79.43	11.83	Recharge shaft with Revival	OVER EXPLOITED
846	Arasur(V)	VILUPPURAM	79.43	11.82	Recharge shaft with Revival	OVER EXPLOITED
847	Arasur(V)	VILUPPURAM	79.43	11.83	Recharge shaft with Revival	OVER EXPLOITED
848	Arasur(V)	VILUPPURAM	79.42	11.84	Recharge shaft with Revival	OVER EXPLOITED
849	Arasur(V)	VILUPPURAM	79.45	11.83	Recharge shaft with Revival	OVER EXPLOITED
850	Arasur(V)	VILUPPURAM	79.45	11.83	Recharge shaft with Revival	OVER EXPLOITED

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851	Arasur(V)	VILUPPURAM	79.45	11.83	Recharge shaft with Revival	OVER EXPLOITED
852	Arasur(V)	VILUPPURAM	79.47	11.83	Recharge shaft with Revival	OVER EXPLOITED
853	Arasur(V)	VILUPPURAM	79.47	11.81	Recharge shaft with Revival	OVER EXPLOITED
854	Arasur(V)	VILUPPURAM	79.47	11.81	Recharge shaft with Revival	OVER EXPLOITED
855	Arasur(V)	VILUPPURAM	79.47	11.81	Recharge shaft with Revival	OVER EXPLOITED
856	Arasur(V)	VILUPPURAM	79.43	11.80	Recharge shaft with Revival	OVER EXPLOITED
857	Chithalingamadam	VILUPPURAM	79.26	11.94	Checkdam	OVER EXPLOITED
858	Chithalingamadam	VILUPPURAM	79.29	11.91	Checkdam	OVER EXPLOITED
859	Chithalingamadam	VILUPPURAM	79.29	11.90	Checkdam	OVER EXPLOITED
860	Chithalingamadam	VILUPPURAM	79.31	11.89	Checkdam	OVER EXPLOITED
861	Chithalingamadam	VILUPPURAM	79.24	11.94	Nalabund	OVER EXPLOITED
862	Chithalingamadam	VILUPPURAM	79.26	11.93	Nalabund	OVER EXPLOITED
863	Chithalingamadam	VILUPPURAM	79.29	11.94	Nalabund	OVER EXPLOITED
864	Chithalingamadam	VILUPPURAM	79.27	11.94	Nalabund	OVER EXPLOITED
865	Chithalingamadam	VILUPPURAM	79.23	11.92	Nalabund	OVER EXPLOITED
866	Chithalingamadam	VILUPPURAM	79.30	11.92	Nalabund	OVER EXPLOITED
867	Chithalingamadam	VILUPPURAM	79.30	11.92	Nalabund	OVER EXPLOITED
868	Chithalingamadam	VILUPPURAM	79.26	11.92	Nalabund	OVER EXPLOITED
869	Chithalingamadam	VILUPPURAM	79.29	11.92	Nalabund	OVER EXPLOITED
870	Chithalingamadam	VILUPPURAM	79.29	11.91	Nalabund	OVER EXPLOITED
871	Chithalingamadam	VILUPPURAM	79.28	11.90	Nalabund	OVER EXPLOITED
872	Chithalingamadam	VILUPPURAM	79.27	11.90	Nalabund	OVER EXPLOITED
873	Chithalingamadam	VILUPPURAM	79.31	11.90	Nalabund	OVER EXPLOITED
874	Chithalingamadam	VILUPPURAM	79.30	11.88	Nalabund	OVER EXPLOITED
875	Chithalingamadam	VILUPPURAM	79.30	11.87	Nalabund	OVER EXPLOITED
876	Chithalingamadam	VILUPPURAM	79.30	11.87	Nalabund	OVER EXPLOITED
877	Chithalingamadam	VILUPPURAM	79.23	11.89	Nalabund	OVER EXPLOITED
878	Chithalingamadam	VILUPPURAM	79.25	11.88	Nalabund	OVER EXPLOITED
879	Chithalingamadam	VILUPPURAM	79.25	11.86	Nalabund	OVER EXPLOITED

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880	Chithalingamadam	VILUPPURAM	79.26	11.87	Nalabund	OVER EXPLOITED
881	Chithalingamadam	VILUPPURAM	79.26	11.94	Only Recharge Shaft	OVER EXPLOITED
882	Chithalingamadam	VILUPPURAM	79.24	11.94	Only Recharge Shaft	OVER EXPLOITED
883	Chithalingamadam	VILUPPURAM	79.25	11.93	Only Recharge Shaft	OVER EXPLOITED
884	Chithalingamadam	VILUPPURAM	79.22	11.93	Only Recharge Shaft	OVER EXPLOITED
885	Chithalingamadam	VILUPPURAM	79.23	11.93	Only Recharge Shaft	OVER EXPLOITED
886	Chithalingamadam	VILUPPURAM	79.23	11.92	Only Recharge Shaft	OVER EXPLOITED
887	Chithalingamadam	VILUPPURAM	79.24	11.93	Only Recharge Shaft	OVER EXPLOITED
888	Chithalingamadam	VILUPPURAM	79.24	11.92	Only Recharge Shaft	OVER EXPLOITED
889	Chithalingamadam	VILUPPURAM	79.26	11.93	Only Recharge Shaft	OVER EXPLOITED
890	Chithalingamadam	VILUPPURAM	79.26	11.93	Only Recharge Shaft	OVER EXPLOITED
891	Chithalingamadam	VILUPPURAM	79.26	11.92	Only Recharge Shaft	OVER EXPLOITED
892	Chithalingamadam	VILUPPURAM	79.28	11.92	Only Recharge Shaft	OVER EXPLOITED
893	Chithalingamadam	VILUPPURAM	79.27	11.92	Only Recharge Shaft	OVER EXPLOITED
894	Chithalingamadam	VILUPPURAM	79.27	11.92	Only Recharge Shaft	OVER EXPLOITED
895	Chithalingamadam	VILUPPURAM	79.25	11.92	Only Recharge Shaft	OVER EXPLOITED
896	Chithalingamadam	VILUPPURAM	79.25	11.91	Only Recharge Shaft	OVER EXPLOITED
897	Chithalingamadam	VILUPPURAM	79.22	11.92	Only Recharge Shaft	OVER EXPLOITED
898	Chithalingamadam	VILUPPURAM	79.23	11.91	Only Recharge Shaft	OVER EXPLOITED
899	Chithalingamadam	VILUPPURAM	79.23	11.91	Only Recharge Shaft	OVER EXPLOITED
900	Chithalingamadam	VILUPPURAM	79.25	11.91	Only Recharge Shaft	OVER EXPLOITED
901	Chithalingamadam	VILUPPURAM	79.25	11.91	Only Recharge Shaft	OVER EXPLOITED
902	Chithalingamadam	VILUPPURAM	79.25	11.90	Only Recharge Shaft	OVER EXPLOITED
903	Chithalingamadam	VILUPPURAM	79.26	11.90	Only Recharge Shaft	OVER EXPLOITED
904	Chithalingamadam	VILUPPURAM	79.26	11.90	Only Recharge Shaft	OVER EXPLOITED
905	Chithalingamadam	VILUPPURAM	79.26	11.90	Only Recharge Shaft	OVER EXPLOITED
906	Chithalingamadam	VILUPPURAM	79.28	11.90	Only Recharge Shaft	OVER EXPLOITED
907	Chithalingamadam	VILUPPURAM	79.29	11.90	Only Recharge Shaft	OVER EXPLOITED

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908	Chithalingamadam	VILUPPURAM	79.30	11.91	Only Recharge Shaft	OVER EXPLOITED
909	Chithalingamadam	VILUPPURAM	79.30	11.90	Only Recharge Shaft	OVER EXPLOITED
910	Chithalingamadam	VILUPPURAM	79.30	11.89	Only Recharge Shaft	OVER EXPLOITED
911	Chithalingamadam	VILUPPURAM	79.29	11.89	Only Recharge Shaft	OVER EXPLOITED
912	Chithalingamadam	VILUPPURAM	79.28	11.89	Only Recharge Shaft	OVER EXPLOITED
913	Chithalingamadam	VILUPPURAM	79.28	11.89	Only Recharge Shaft	OVER EXPLOITED
914	Chithalingamadam	VILUPPURAM	79.31	11.89	Only Recharge Shaft	OVER EXPLOITED
915	Chithalingamadam	VILUPPURAM	79.30	11.88	Only Recharge Shaft	OVER EXPLOITED
916	Chithalingamadam	VILUPPURAM	79.31	11.88	Only Recharge Shaft	OVER EXPLOITED
917	Chithalingamadam	VILUPPURAM	79.29	11.88	Only Recharge Shaft	OVER EXPLOITED
918	Chithalingamadam	VILUPPURAM	79.29	11.88	Only Recharge Shaft	OVER EXPLOITED
919	Chithalingamadam	VILUPPURAM	79.29	11.87	Only Recharge Shaft	OVER EXPLOITED
920	Chithalingamadam	VILUPPURAM	79.24	11.89	Only Recharge Shaft	OVER EXPLOITED
921	Chithalingamadam	VILUPPURAM	79.24	11.89	Only Recharge Shaft	OVER EXPLOITED
922	Chithalingamadam	VILUPPURAM	79.25	11.88	Only Recharge Shaft	OVER EXPLOITED
923	Chithalingamadam	VILUPPURAM	79.27	11.87	Only Recharge Shaft	OVER EXPLOITED
924	Chithalingamadam	VILUPPURAM	79.24	11.86	Only Recharge Shaft	OVER EXPLOITED
925	Chithalingamadam	VILUPPURAM	79.26	11.86	Only Recharge Shaft	OVER EXPLOITED
926	Chithalingamadam	VILUPPURAM	79.25	11.85	Only Recharge Shaft	OVER EXPLOITED
927	Chithalingamadam	VILUPPURAM	79.31	11.89	Only Recharge Shaft	OVER EXPLOITED
928	Chithalingamadam	VILUPPURAM	79.25	11.92	Recharge shaft with Revival	OVER EXPLOITED
929	Chithalingamadam	VILUPPURAM	79.28	11.91	Recharge shaft with Revival	OVER EXPLOITED
930	Chithalingamadam	VILUPPURAM	79.29	11.90	Recharge shaft with Revival	OVER EXPLOITED
931	Chithalingamadam	VILUPPURAM	79.29	11.89	Recharge shaft with Revival	OVER EXPLOITED
932	Chithalingamadam	VILUPPURAM	79.29	11.89	Recharge shaft with Revival	OVER EXPLOITED
933	Chithalingamadam	VILUPPURAM	79.29	11.88	Recharge shaft with Revival	OVER EXPLOITED
934	Chithalingamadam	VILUPPURAM	79.30	11.88	Recharge shaft with Revival	OVER EXPLOITED

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935	Chithalingamadam	VILUPPURAM	79.30	11.88	Recharge shaft with Revival	OVER EXPLOITED
936	Chithalingamadam	VILUPPURAM	79.30	11.88	Recharge shaft with Revival	OVER EXPLOITED
937	Chithalingamadam	VILUPPURAM	79.29	11.89	Recharge shaft with Revival	OVER EXPLOITED
938	Chithalingamadam	VILUPPURAM	79.27	11.86	Recharge shaft with Revival	OVER EXPLOITED
939	Chithalingamadam	VILUPPURAM	79.27	11.86	Recharge shaft with Revival	OVER EXPLOITED
940	Elavanasurkottai	VILUPPURAM	79.23	11.75	Nalabund	OVER EXPLOITED
941	Elavanasurkottai	VILUPPURAM	79.19	11.73	Nalabund	OVER EXPLOITED
942	Elavanasurkottai	VILUPPURAM	79.19	11.72	Nalabund	OVER EXPLOITED
943	Elavanasurkottai	VILUPPURAM	79.17	11.74	Nalabund	OVER EXPLOITED
944	Elavanasurkottai	VILUPPURAM	79.16	11.71	Nalabund	OVER EXPLOITED
945	Elavanasurkottai	VILUPPURAM	79.20	11.69	Nalabund	OVER EXPLOITED
946	Elavanasurkottai	VILUPPURAM	79.17	11.67	Nalabund	OVER EXPLOITED
947	Elavanasurkottai	VILUPPURAM	79.19	11.67	Nalabund	OVER EXPLOITED
948	Elavanasurkottai	VILUPPURAM	79.18	11.73	Nalabund	OVER EXPLOITED
949	Elavanasurkottai	VILUPPURAM	79.20	11.72	Nalabund	OVER EXPLOITED
950	Elavanasurkottai	VILUPPURAM	79.20	11.76	Only Recharge Shaft	OVER EXPLOITED
951	Elavanasurkottai	VILUPPURAM	79.19	11.76	Only Recharge Shaft	OVER EXPLOITED
952	Elavanasurkottai	VILUPPURAM	79.20	11.76	Only Recharge Shaft	OVER EXPLOITED
953	Elavanasurkottai	VILUPPURAM	79.17	11.72	Only Recharge Shaft	OVER EXPLOITED
954	Elavanasurkottai	VILUPPURAM	79.17	11.72	Only Recharge Shaft	OVER EXPLOITED
955	Elavanasurkottai	VILUPPURAM	79.17	11.72	Only Recharge Shaft	OVER EXPLOITED
956	Elavanasurkottai	VILUPPURAM	79.17	11.74	Only Recharge Shaft	OVER EXPLOITED
957	Elavanasurkottai	VILUPPURAM	79.16	11.72	Only Recharge Shaft	OVER EXPLOITED
958	Elavanasurkottai	VILUPPURAM	79.16	11.73	Only Recharge Shaft	OVER EXPLOITED
959	Elavanasurkottai	VILUPPURAM	79.18	11.73	Only Recharge Shaft	OVER EXPLOITED
960	Elavanasurkottai	VILUPPURAM	79.16	11.74	Only Recharge Shaft	OVER EXPLOITED
961	Elavanasurkottai	VILUPPURAM	79.15	11.74	Only Recharge Shaft	OVER EXPLOITED
962	Elavanasurkottai	VILUPPURAM	79.15	11.74	Only Recharge Shaft	OVER EXPLOITED

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963	Elavanasurkottai	VILUPPURAM	79.14	11.72	Only Recharge Shaft	OVER EXPLOITED
964	Elavanasurkottai	VILUPPURAM	79.16	11.71	Only Recharge Shaft	OVER EXPLOITED
965	Elavanasurkottai	VILUPPURAM	79.16	11.71	Only Recharge Shaft	OVER EXPLOITED
966	Elavanasurkottai	VILUPPURAM	79.14	11.73	Only Recharge Shaft	OVER EXPLOITED
967	Elavanasurkottai	VILUPPURAM	79.18	11.68	Only Recharge Shaft	OVER EXPLOITED
968	Elavanasurkottai	VILUPPURAM	79.14	11.72	Only Recharge Shaft	OVER EXPLOITED
969	Elavanasurkottai	VILUPPURAM	79.19	11.71	Only Recharge Shaft	OVER EXPLOITED
970	Elavanasurkottai	VILUPPURAM	79.18	11.70	Only Recharge Shaft	OVER EXPLOITED
971	Elavanasurkottai	VILUPPURAM	79.19	11.70	Only Recharge Shaft	OVER EXPLOITED
972	Elavanasurkottai	VILUPPURAM	79.19	11.67	Only Recharge Shaft	OVER EXPLOITED
973	Elavanasurkottai	VILUPPURAM	79.19	11.68	Only Recharge Shaft	OVER EXPLOITED
974	Elavanasurkottai	VILUPPURAM	79.19	11.68	Only Recharge Shaft	OVER EXPLOITED
975	Elavanasurkottai	VILUPPURAM	79.18	11.67	Only Recharge Shaft	OVER EXPLOITED
976	Elavanasurkottai	VILUPPURAM	79.18	11.66	Only Recharge Shaft	OVER EXPLOITED
977	Elavanasurkottai	VILUPPURAM	79.19	11.67	Only Recharge Shaft	OVER EXPLOITED
978	Elavanasurkottai	VILUPPURAM	79.25	11.73	Only Recharge Shaft	OVER EXPLOITED
979	Elavanasurkottai	VILUPPURAM	79.21	11.69	Only Recharge Shaft	OVER EXPLOITED
980	Elavanasurkottai	VILUPPURAM	79.21	11.69	Only Recharge Shaft	OVER EXPLOITED
981	Elavanasurkottai	VILUPPURAM	79.21	11.68	Only Recharge Shaft	OVER EXPLOITED
982	Elavanasurkottai	VILUPPURAM	79.20	11.67	Only Recharge Shaft	OVER EXPLOITED
983	Elavanasurkottai	VILUPPURAM	79.20	11.67	Only Recharge Shaft	OVER EXPLOITED
984	Elavanasurkottai	VILUPPURAM	79.16	11.66	Only Recharge Shaft	OVER EXPLOITED
985	Elavanasurkottai	VILUPPURAM	79.17	11.66	Only Recharge Shaft	OVER EXPLOITED
986	Elavanasurkottai	VILUPPURAM	79.19	11.75	Only Recharge Shaft	OVER EXPLOITED
987	Elavanasurkottai	VILUPPURAM	79.18	11.75	Only Recharge Shaft	OVER EXPLOITED
988	Elavanasurkottai	VILUPPURAM	79.18	11.74	Only Recharge Shaft	OVER EXPLOITED
989	Elavanasurkottai	VILUPPURAM	79.21	11.75	Only Recharge Shaft	OVER EXPLOITED
990	Elavanasurkottai	VILUPPURAM	79.21	11.74	Only Recharge Shaft	OVER EXPLOITED

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					Shaft	
991	Elavanasurkottai	VILUPPURAM	79.19	11.73	Only Recharge Shaft	OVER EXPLOITED
992	Elavanasurkottai	VILUPPURAM	79.20	11.73	Only Recharge Shaft	OVER EXPLOITED
993	Elavanasurkottai	VILUPPURAM	79.20	11.73	Only Recharge Shaft	OVER EXPLOITED
994	Elavanasurkottai	VILUPPURAM	79.21	11.73	Only Recharge Shaft	OVER EXPLOITED
995	Elavanasurkottai	VILUPPURAM	79.21	11.72	Only Recharge Shaft	OVER EXPLOITED
996	Elavanasurkottai	VILUPPURAM	79.20	11.72	Only Recharge Shaft	OVER EXPLOITED
997	Elavanasurkottai	VILUPPURAM	79.20	11.71	Only Recharge Shaft	OVER EXPLOITED
998	Elavanasurkottai	VILUPPURAM	79.20	11.71	Only Recharge Shaft	OVER EXPLOITED
999	Elavanasurkottai	VILUPPURAM	79.21	11.70	Only Recharge Shaft	OVER EXPLOITED
1000	Elavanasurkottai	VILUPPURAM	79.20	11.70	Only Recharge Shaft	OVER EXPLOITED
1001	Elavanasurkottai	VILUPPURAM	79.21	11.70	Only Recharge Shaft	OVER EXPLOITED
1002	Elavanasurkottai	VILUPPURAM	79.22	11.72	Only Recharge Shaft	OVER EXPLOITED
1003	Elavanasurkottai	VILUPPURAM	79.22	11.72	Only Recharge Shaft	OVER EXPLOITED
1004	Elavanasurkottai	VILUPPURAM	79.22	11.72	Only Recharge Shaft	OVER EXPLOITED
1005	Elavanasurkottai	VILUPPURAM	79.24	11.73	Only Recharge Shaft	OVER EXPLOITED
1006	Elavanasurkottai	VILUPPURAM	79.22	11.74	Only Recharge Shaft	OVER EXPLOITED
1007	Elavanasurkottai	VILUPPURAM	79.22	11.74	Only Recharge Shaft	OVER EXPLOITED
1008	Elavanasurkottai	VILUPPURAM	79.24	11.73	Only Recharge Shaft	OVER EXPLOITED
1009	Elavanasurkottai	VILUPPURAM	79.18	11.71	Only Recharge Shaft	OVER EXPLOITED
1010	Elavanasurkottai	VILUPPURAM	79.20	11.65	Only Recharge Shaft	OVER EXPLOITED
1011	Elavanasurkottai	VILUPPURAM	79.21	11.65	Only Recharge Shaft	OVER EXPLOITED
1012	Elavanasurkottai	VILUPPURAM	79.19	11.66	Only Recharge Shaft	OVER EXPLOITED
1013	Elavanasurkottai	VILUPPURAM	79.19	11.65	Only Recharge Shaft	OVER EXPLOITED
1014	Elavanasurkottai	VILUPPURAM	79.20	11.66	Only Recharge Shaft	OVER EXPLOITED
1015	Elavanasurkottai	VILUPPURAM	79.23	11.74	Recharge shaft with Revival	OVER EXPLOITED
1016	Elavanasurkottai	VILUPPURAM	79.25	11.74	Recharge shaft with Revival	OVER EXPLOITED
1017	Elavanasurkottai	VILUPPURAM	79.23	11.74	Recharge shaft with Revival	OVER EXPLOITED

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1018	Elavanasurkottai	VILUPPURAM	79.25	11.74	Recharge shaft with Revival	OVER EXPLOITED
1019	Elavanasurkottai	VILUPPURAM	79.18	11.72	Recharge shaft with Revival	OVER EXPLOITED
1020	Elavanasurkottai	VILUPPURAM	79.19	11.72	Recharge shaft with Revival	OVER EXPLOITED
1021	Elavanasurkottai	VILUPPURAM	79.20	11.72	Recharge shaft with Revival	OVER EXPLOITED
1022	Elavanasurkottai	VILUPPURAM	79.19	11.71	Recharge shaft with Revival	OVER EXPLOITED
1023	Elavanasurkottai	VILUPPURAM	79.19	11.71	Recharge shaft with Revival	OVER EXPLOITED
1024	Elavanasurkottai	VILUPPURAM	79.19	11.71	Recharge shaft with Revival	OVER EXPLOITED
1025	Elavanasurkottai	VILUPPURAM	79.19	11.70	Recharge shaft with Revival	OVER EXPLOITED
1026	Elavanasurkottai	VILUPPURAM	79.18	11.70	Recharge shaft with Revival	OVER EXPLOITED
1027	Elavanasurkottai	VILUPPURAM	79.20	11.65	Recharge shaft with Revival	OVER EXPLOITED
1028	Eraiyr	VILUPPURAM	79.26	11.83	Checkdam	OVER EXPLOITED
1029	Eraiyr	VILUPPURAM	79.15	11.85	Checkdam	OVER EXPLOITED
1030	Eraiyr	VILUPPURAM	79.14	11.78	Checkdam	OVER EXPLOITED
1031	Eraiyr	VILUPPURAM	79.22	11.79	Checkdam	OVER EXPLOITED
1032	Eraiyr	VILUPPURAM	79.20	11.81	Checkdam	OVER EXPLOITED
1033	Eraiyr	VILUPPURAM	79.20	11.76	Checkdam	OVER EXPLOITED
1034	Eraiyr	VILUPPURAM	79.16	11.84	Checkdam	OVER EXPLOITED
1035	Eraiyr	VILUPPURAM	79.28	11.84	Nalabund	OVER EXPLOITED
1036	Eraiyr	VILUPPURAM	79.24	11.83	Nalabund	OVER EXPLOITED
1037	Eraiyr	VILUPPURAM	79.26	11.83	Nalabund	OVER EXPLOITED
1038	Eraiyr	VILUPPURAM	79.25	11.82	Nalabund	OVER EXPLOITED
1039	Eraiyr	VILUPPURAM	79.23	11.79	Nalabund	OVER EXPLOITED
1040	Eraiyr	VILUPPURAM	79.23	11.81	Nalabund	OVER EXPLOITED
1041	Eraiyr	VILUPPURAM	79.22	11.79	Nalabund	OVER EXPLOITED
1042	Eraiyr	VILUPPURAM	79.22	11.79	Nalabund	OVER EXPLOITED
1043	Eraiyr	VILUPPURAM	79.21	11.81	Nalabund	OVER EXPLOITED
1044	Eraiyr	VILUPPURAM	79.21	11.79	Nalabund	OVER EXPLOITED
1045	Eraiyr	VILUPPURAM	79.22	11.77	Nalabund	OVER EXPLOITED
1046	Eraiyr	VILUPPURAM	79.26	11.82	Nalabund	OVER

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						EXPLOITED
1047	Eraiyr	VILUPPURAM	79.26	11.81	Nalabund	OVER EXPLOITED
1048	Eraiyr	VILUPPURAM	79.25	11.79	Nalabund	OVER EXPLOITED
1049	Eraiyr	VILUPPURAM	79.20	11.77	Nalabund	OVER EXPLOITED
1050	Eraiyr	VILUPPURAM	79.23	11.76	Nalabund	OVER EXPLOITED
1051	Eraiyr	VILUPPURAM	79.19	11.81	Nalabund	OVER EXPLOITED
1052	Eraiyr	VILUPPURAM	79.17	11.83	Nalabund	OVER EXPLOITED
1053	Eraiyr	VILUPPURAM	79.15	11.84	Nalabund	OVER EXPLOITED
1054	Eraiyr	VILUPPURAM	79.16	11.83	Nalabund	OVER EXPLOITED
1055	Eraiyr	VILUPPURAM	79.13	11.78	Nalabund	OVER EXPLOITED
1056	Eraiyr	VILUPPURAM	79.14	11.78	Nalabund	OVER EXPLOITED
1057	Eraiyr	VILUPPURAM	79.14	11.78	Nalabund	OVER EXPLOITED
1058	Eraiyr	VILUPPURAM	79.16	11.82	Nalabund	OVER EXPLOITED
1059	Eraiyr	VILUPPURAM	79.18	11.76	Nalabund	OVER EXPLOITED
1060	Eraiyr	VILUPPURAM	79.18	11.79	Nalabund	OVER EXPLOITED
1061	Eraiyr	VILUPPURAM	79.19	11.79	Nalabund	OVER EXPLOITED
1062	Eraiyr	VILUPPURAM	79.20	11.77	Nalabund	OVER EXPLOITED
1063	Eraiyr	VILUPPURAM	79.24	11.80	Nalabund	OVER EXPLOITED
1064	Eraiyr	VILUPPURAM	79.22	11.79	Nalabund	OVER EXPLOITED
1065	Eraiyr	VILUPPURAM	79.29	11.82	Nalabund	OVER EXPLOITED
1066	Eraiyr	VILUPPURAM	79.28	11.83	Nalabund	OVER EXPLOITED
1067	Eraiyr	VILUPPURAM	79.17	11.74	Nalabund	OVER EXPLOITED
1068	Eraiyr	VILUPPURAM	79.24	11.84	Only Recharge Shaft	OVER EXPLOITED
1069	Eraiyr	VILUPPURAM	79.26	11.84	Only Recharge Shaft	OVER EXPLOITED
1070	Eraiyr	VILUPPURAM	79.22	11.84	Only Recharge Shaft	OVER EXPLOITED
1071	Eraiyr	VILUPPURAM	79.17	11.84	Only Recharge Shaft	OVER EXPLOITED
1072	Eraiyr	VILUPPURAM	79.18	11.84	Only Recharge Shaft	OVER EXPLOITED
1073	Eraiyr	VILUPPURAM	79.18	11.84	Only Recharge Shaft	OVER EXPLOITED
1074	Eraiyr	VILUPPURAM	79.19	11.85	Only Recharge Shaft	OVER EXPLOITED
1075	Eraiyr	VILUPPURAM	79.14	11.85	Only Recharge Shaft	OVER EXPLOITED

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1076	Eraiyr	VILUPPURAM	79.14	11.84	Only Recharge Shaft	OVER EXPLOITED
1077	Eraiyr	VILUPPURAM	79.14	11.83	Only Recharge Shaft	OVER EXPLOITED
1078	Eraiyr	VILUPPURAM	79.16	11.83	Only Recharge Shaft	OVER EXPLOITED
1079	Eraiyr	VILUPPURAM	79.28	11.83	Only Recharge Shaft	OVER EXPLOITED
1080	Eraiyr	VILUPPURAM	79.27	11.82	Only Recharge Shaft	OVER EXPLOITED
1081	Eraiyr	VILUPPURAM	79.25	11.83	Only Recharge Shaft	OVER EXPLOITED
1082	Eraiyr	VILUPPURAM	79.25	11.83	Only Recharge Shaft	OVER EXPLOITED
1083	Eraiyr	VILUPPURAM	79.23	11.83	Only Recharge Shaft	OVER EXPLOITED
1084	Eraiyr	VILUPPURAM	79.23	11.83	Only Recharge Shaft	OVER EXPLOITED
1085	Eraiyr	VILUPPURAM	79.29	11.83	Only Recharge Shaft	OVER EXPLOITED
1086	Eraiyr	VILUPPURAM	79.28	11.82	Only Recharge Shaft	OVER EXPLOITED
1087	Eraiyr	VILUPPURAM	79.21	11.83	Only Recharge Shaft	OVER EXPLOITED
1088	Eraiyr	VILUPPURAM	79.21	11.83	Only Recharge Shaft	OVER EXPLOITED
1089	Eraiyr	VILUPPURAM	79.18	11.81	Only Recharge Shaft	OVER EXPLOITED
1090	Eraiyr	VILUPPURAM	79.17	11.80	Only Recharge Shaft	OVER EXPLOITED
1091	Eraiyr	VILUPPURAM	79.18	11.81	Only Recharge Shaft	OVER EXPLOITED
1092	Eraiyr	VILUPPURAM	79.19	11.80	Only Recharge Shaft	OVER EXPLOITED
1093	Eraiyr	VILUPPURAM	79.20	11.82	Only Recharge Shaft	OVER EXPLOITED
1094	Eraiyr	VILUPPURAM	79.21	11.82	Only Recharge Shaft	OVER EXPLOITED
1095	Eraiyr	VILUPPURAM	79.20	11.81	Only Recharge Shaft	OVER EXPLOITED
1096	Eraiyr	VILUPPURAM	79.20	11.81	Only Recharge Shaft	OVER EXPLOITED
1097	Eraiyr	VILUPPURAM	79.20	11.80	Only Recharge Shaft	OVER EXPLOITED
1098	Eraiyr	VILUPPURAM	79.21	11.80	Only Recharge Shaft	OVER EXPLOITED
1099	Eraiyr	VILUPPURAM	79.19	11.79	Only Recharge Shaft	OVER EXPLOITED
1100	Eraiyr	VILUPPURAM	79.19	11.79	Only Recharge Shaft	OVER EXPLOITED
1101	Eraiyr	VILUPPURAM	79.19	11.79	Only Recharge Shaft	OVER EXPLOITED
1102	Eraiyr	VILUPPURAM	79.22	11.78	Only Recharge Shaft	OVER EXPLOITED
1103	Eraiyr	VILUPPURAM	79.24	11.81	Only Recharge	OVER EXPLOITED

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					Shaft	
1104	Eraiyr	VILUPPURAM	79.24	11.81	Only Recharge Shaft	OVER EXPLOITED
1105	Eraiyr	VILUPPURAM	79.27	11.82	Only Recharge Shaft	OVER EXPLOITED
1106	Eraiyr	VILUPPURAM	79.27	11.81	Only Recharge Shaft	OVER EXPLOITED
1107	Eraiyr	VILUPPURAM	79.26	11.81	Only Recharge Shaft	OVER EXPLOITED
1108	Eraiyr	VILUPPURAM	79.27	11.80	Only Recharge Shaft	OVER EXPLOITED
1109	Eraiyr	VILUPPURAM	79.16	11.81	Only Recharge Shaft	OVER EXPLOITED
1110	Eraiyr	VILUPPURAM	79.25	11.80	Only Recharge Shaft	OVER EXPLOITED
1111	Eraiyr	VILUPPURAM	79.24	11.79	Only Recharge Shaft	OVER EXPLOITED
1112	Eraiyr	VILUPPURAM	79.24	11.78	Only Recharge Shaft	OVER EXPLOITED
1113	Eraiyr	VILUPPURAM	79.25	11.79	Only Recharge Shaft	OVER EXPLOITED
1114	Eraiyr	VILUPPURAM	79.25	11.78	Only Recharge Shaft	OVER EXPLOITED
1115	Eraiyr	VILUPPURAM	79.25	11.77	Only Recharge Shaft	OVER EXPLOITED
1116	Eraiyr	VILUPPURAM	79.25	11.77	Only Recharge Shaft	OVER EXPLOITED
1117	Eraiyr	VILUPPURAM	79.22	11.78	Only Recharge Shaft	OVER EXPLOITED
1118	Eraiyr	VILUPPURAM	79.21	11.76	Only Recharge Shaft	OVER EXPLOITED
1119	Eraiyr	VILUPPURAM	79.21	11.76	Only Recharge Shaft	OVER EXPLOITED
1120	Eraiyr	VILUPPURAM	79.21	11.76	Only Recharge Shaft	OVER EXPLOITED
1121	Eraiyr	VILUPPURAM	79.24	11.76	Only Recharge Shaft	OVER EXPLOITED
1122	Eraiyr	VILUPPURAM	79.24	11.76	Only Recharge Shaft	OVER EXPLOITED
1123	Eraiyr	VILUPPURAM	79.24	11.76	Only Recharge Shaft	OVER EXPLOITED
1124	Eraiyr	VILUPPURAM	79.16	11.79	Only Recharge Shaft	OVER EXPLOITED
1125	Eraiyr	VILUPPURAM	79.16	11.80	Only Recharge Shaft	OVER EXPLOITED
1126	Eraiyr	VILUPPURAM	79.14	11.80	Only Recharge Shaft	OVER EXPLOITED
1127	Eraiyr	VILUPPURAM	79.13	11.80	Only Recharge Shaft	OVER EXPLOITED
1128	Eraiyr	VILUPPURAM	79.13	11.79	Only Recharge Shaft	OVER EXPLOITED
1129	Eraiyr	VILUPPURAM	79.13	11.79	Only Recharge Shaft	OVER EXPLOITED
1130	Eraiyr	VILUPPURAM	79.13	11.78	Only Recharge Shaft	OVER EXPLOITED

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1131	Eraiyrur	VILUPPURAM	79.14	11.77	Only Recharge Shaft	OVER EXPLOITED
1132	Eraiyrur	VILUPPURAM	79.14	11.79	Only Recharge Shaft	OVER EXPLOITED
1133	Eraiyrur	VILUPPURAM	79.15	11.78	Only Recharge Shaft	OVER EXPLOITED
1134	Eraiyrur	VILUPPURAM	79.16	11.77	Only Recharge Shaft	OVER EXPLOITED
1135	Eraiyrur	VILUPPURAM	79.17	11.77	Only Recharge Shaft	OVER EXPLOITED
1136	Eraiyrur	VILUPPURAM	79.17	11.77	Only Recharge Shaft	OVER EXPLOITED
1137	Eraiyrur	VILUPPURAM	79.17	11.75	Only Recharge Shaft	OVER EXPLOITED
1138	Eraiyrur	VILUPPURAM	79.16	11.75	Only Recharge Shaft	OVER EXPLOITED
1139	Eraiyrur	VILUPPURAM	79.13	11.78	Only Recharge Shaft	OVER EXPLOITED
1140	Eraiyrur	VILUPPURAM	79.13	11.77	Only Recharge Shaft	OVER EXPLOITED
1141	Eraiyrur	VILUPPURAM	79.20	11.75	Only Recharge Shaft	OVER EXPLOITED
1142	Eraiyrur	VILUPPURAM	79.28	11.84	Recharge shaft with Revival	OVER EXPLOITED
1143	Eraiyrur	VILUPPURAM	79.27	11.81	Recharge shaft with Revival	OVER EXPLOITED
1144	Eraiyrur	VILUPPURAM	79.25	11.81	Recharge shaft with Revival	OVER EXPLOITED
1145	Eraiyrur	VILUPPURAM	79.23	11.78	Recharge shaft with Revival	OVER EXPLOITED
1146	Eraiyrur	VILUPPURAM	79.23	11.79	Recharge shaft with Revival	OVER EXPLOITED
1147	Eraiyrur	VILUPPURAM	79.21	11.79	Recharge shaft with Revival	OVER EXPLOITED
1148	Eraiyrur	VILUPPURAM	79.19	11.78	Recharge shaft with Revival	OVER EXPLOITED
1149	Eraiyrur	VILUPPURAM	79.17	11.76	Recharge shaft with Revival	OVER EXPLOITED
1150	Eraiyrur	VILUPPURAM	79.17	11.76	Recharge shaft with Revival	OVER EXPLOITED
1151	Eraiyrur	VILUPPURAM	79.18	11.75	Recharge shaft with Revival	OVER EXPLOITED
1152	Eraiyrur	VILUPPURAM	79.16	11.79	Recharge shaft with Revival	OVER EXPLOITED
1153	Eraiyrur	VILUPPURAM	79.15	11.79	Recharge shaft with Revival	OVER EXPLOITED
1154	Eraiyrur	VILUPPURAM	79.15	11.80	Recharge shaft with Revival	OVER EXPLOITED
1155	Eraiyrur	VILUPPURAM	79.13	11.79	Recharge shaft with Revival	OVER EXPLOITED
1156	Eraiyrur	VILUPPURAM	79.14	11.77	Recharge shaft with Revival	OVER EXPLOITED

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1157	Eraiyr	VILUPPURAM	79.16	11.81	Recharge shaft with Revival	OVER EXPLOITED
1158	Eraiyr	VILUPPURAM	79.20	11.82	Recharge shaft with Revival	OVER EXPLOITED
1159	Eraiyr	VILUPPURAM	79.21	11.81	Recharge shaft with Revival	OVER EXPLOITED
1160	Eraiyr	VILUPPURAM	79.22	11.82	Recharge shaft with Revival	OVER EXPLOITED
1161	Eraiyr	VILUPPURAM	79.22	11.82	Recharge shaft with Revival	OVER EXPLOITED
1162	Eraiyr	VILUPPURAM	79.22	11.83	Recharge shaft with Revival	OVER EXPLOITED
1163	Eraiyr	VILUPPURAM	79.23	11.82	Recharge shaft with Revival	OVER EXPLOITED
1164	Kalamarudur	VILUPPURAM	79.36	11.84	Checkdam	OVER EXPLOITED
1165	Kalamarudur	VILUPPURAM	79.35	11.86	Checkdam	OVER EXPLOITED
1166	Kalamarudur	VILUPPURAM	79.30	11.84	Checkdam	OVER EXPLOITED
1167	Kalamarudur	VILUPPURAM	79.29	11.78	Checkdam	OVER EXPLOITED
1168	Kalamarudur	VILUPPURAM	79.26	11.78	Checkdam	OVER EXPLOITED
1169	Kalamarudur	VILUPPURAM	79.28	11.76	Checkdam	OVER EXPLOITED
1170	Kalamarudur	VILUPPURAM	79.30	11.85	Nalabund	OVER EXPLOITED
1171	Kalamarudur	VILUPPURAM	79.30	11.85	Nalabund	OVER EXPLOITED
1172	Kalamarudur	VILUPPURAM	79.31	11.86	Nalabund	OVER EXPLOITED
1173	Kalamarudur	VILUPPURAM	79.35	11.85	Nalabund	OVER EXPLOITED
1174	Kalamarudur	VILUPPURAM	79.29	11.83	Nalabund	OVER EXPLOITED
1175	Kalamarudur	VILUPPURAM	79.37	11.84	Nalabund	OVER EXPLOITED
1176	Kalamarudur	VILUPPURAM	79.34	11.83	Nalabund	OVER EXPLOITED
1177	Kalamarudur	VILUPPURAM	79.32	11.80	Nalabund	OVER EXPLOITED
1178	Kalamarudur	VILUPPURAM	79.31	11.81	Nalabund	OVER EXPLOITED
1179	Kalamarudur	VILUPPURAM	79.29	11.79	Nalabund	OVER EXPLOITED
1180	Kalamarudur	VILUPPURAM	79.27	11.79	Nalabund	OVER EXPLOITED
1181	Kalamarudur	VILUPPURAM	79.26	11.78	Nalabund	OVER EXPLOITED
1182	Kalamarudur	VILUPPURAM	79.28	11.77	Nalabund	OVER EXPLOITED
1183	Kalamarudur	VILUPPURAM	79.31	11.76	Nalabund	OVER EXPLOITED
1184	Kalamarudur	VILUPPURAM	79.30	11.76	Nalabund	OVER EXPLOITED
1185	Kalamarudur	VILUPPURAM	79.30	11.78	Nalabund	OVER EXPLOITED

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1186	Kalamarudur	VILUPPURAM	79.33	11.83	Nalabund	OVER EXPLOITED
1187	Kalamarudur	VILUPPURAM	79.30	11.79	Nalabund	OVER EXPLOITED
1188	Kalamarudur	VILUPPURAM	79.32	11.82	Nalabund	OVER EXPLOITED
1189	Kalamarudur	VILUPPURAM	79.30	11.86	Only Recharge Shaft	OVER EXPLOITED
1190	Kalamarudur	VILUPPURAM	79.30	11.86	Only Recharge Shaft	OVER EXPLOITED
1191	Kalamarudur	VILUPPURAM	79.31	11.86	Only Recharge Shaft	OVER EXPLOITED
1192	Kalamarudur	VILUPPURAM	79.31	11.85	Only Recharge Shaft	OVER EXPLOITED
1193	Kalamarudur	VILUPPURAM	79.33	11.84	Only Recharge Shaft	OVER EXPLOITED
1194	Kalamarudur	VILUPPURAM	79.34	11.84	Only Recharge Shaft	OVER EXPLOITED
1195	Kalamarudur	VILUPPURAM	79.31	11.84	Only Recharge Shaft	OVER EXPLOITED
1196	Kalamarudur	VILUPPURAM	79.35	11.85	Only Recharge Shaft	OVER EXPLOITED
1197	Kalamarudur	VILUPPURAM	79.35	11.86	Only Recharge Shaft	OVER EXPLOITED
1198	Kalamarudur	VILUPPURAM	79.35	11.86	Only Recharge Shaft	OVER EXPLOITED
1199	Kalamarudur	VILUPPURAM	79.34	11.84	Only Recharge Shaft	OVER EXPLOITED
1200	Kalamarudur	VILUPPURAM	79.32	11.84	Only Recharge Shaft	OVER EXPLOITED
1201	Kalamarudur	VILUPPURAM	79.30	11.83	Only Recharge Shaft	OVER EXPLOITED
1202	Kalamarudur	VILUPPURAM	79.31	11.83	Only Recharge Shaft	OVER EXPLOITED
1203	Kalamarudur	VILUPPURAM	79.36	11.85	Only Recharge Shaft	OVER EXPLOITED
1204	Kalamarudur	VILUPPURAM	79.36	11.85	Only Recharge Shaft	OVER EXPLOITED
1205	Kalamarudur	VILUPPURAM	79.28	11.85	Only Recharge Shaft	OVER EXPLOITED
1206	Kalamarudur	VILUPPURAM	79.29	11.85	Only Recharge Shaft	OVER EXPLOITED
1207	Kalamarudur	VILUPPURAM	79.29	11.84	Only Recharge Shaft	OVER EXPLOITED
1208	Kalamarudur	VILUPPURAM	79.28	11.82	Only Recharge Shaft	OVER EXPLOITED
1209	Kalamarudur	VILUPPURAM	79.31	11.83	Only Recharge Shaft	OVER EXPLOITED
1210	Kalamarudur	VILUPPURAM	79.33	11.83	Only Recharge Shaft	OVER EXPLOITED
1211	Kalamarudur	VILUPPURAM	79.33	11.83	Only Recharge Shaft	OVER EXPLOITED
1212	Kalamarudur	VILUPPURAM	79.31	11.82	Only Recharge Shaft	OVER EXPLOITED
1213	Kalamarudur	VILUPPURAM	79.27	11.80	Only Recharge Shaft	OVER EXPLOITED

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1214	Kalamarudur	VILUPPURAM	79.29	11.81	Only Recharge Shaft	OVER EXPLOITED
1215	Kalamarudur	VILUPPURAM	79.29	11.81	Only Recharge Shaft	OVER EXPLOITED
1216	Kalamarudur	VILUPPURAM	79.30	11.82	Only Recharge Shaft	OVER EXPLOITED
1217	Kalamarudur	VILUPPURAM	79.31	11.82	Only Recharge Shaft	OVER EXPLOITED
1218	Kalamarudur	VILUPPURAM	79.32	11.81	Only Recharge Shaft	OVER EXPLOITED
1219	Kalamarudur	VILUPPURAM	79.29	11.81	Only Recharge Shaft	OVER EXPLOITED
1220	Kalamarudur	VILUPPURAM	79.29	11.80	Only Recharge Shaft	OVER EXPLOITED
1221	Kalamarudur	VILUPPURAM	79.29	11.80	Only Recharge Shaft	OVER EXPLOITED
1222	Kalamarudur	VILUPPURAM	79.30	11.80	Only Recharge Shaft	OVER EXPLOITED
1223	Kalamarudur	VILUPPURAM	79.30	11.79	Only Recharge Shaft	OVER EXPLOITED
1224	Kalamarudur	VILUPPURAM	79.32	11.79	Only Recharge Shaft	OVER EXPLOITED
1225	Kalamarudur	VILUPPURAM	79.31	11.78	Only Recharge Shaft	OVER EXPLOITED
1226	Kalamarudur	VILUPPURAM	79.30	11.77	Only Recharge Shaft	OVER EXPLOITED
1227	Kalamarudur	VILUPPURAM	79.30	11.76	Only Recharge Shaft	OVER EXPLOITED
1228	Kalamarudur	VILUPPURAM	79.29	11.76	Only Recharge Shaft	OVER EXPLOITED
1229	Kalamarudur	VILUPPURAM	79.30	11.76	Only Recharge Shaft	OVER EXPLOITED
1230	Kalamarudur	VILUPPURAM	79.28	11.79	Only Recharge Shaft	OVER EXPLOITED
1231	Kalamarudur	VILUPPURAM	79.28	11.78	Only Recharge Shaft	OVER EXPLOITED
1232	Kalamarudur	VILUPPURAM	79.27	11.77	Only Recharge Shaft	OVER EXPLOITED
1233	Kalamarudur	VILUPPURAM	79.26	11.77	Only Recharge Shaft	OVER EXPLOITED
1234	Kalamarudur	VILUPPURAM	79.26	11.77	Only Recharge Shaft	OVER EXPLOITED
1235	Kalamarudur	VILUPPURAM	79.36	11.84	Only Recharge Shaft	OVER EXPLOITED
1236	Kalamarudur	VILUPPURAM	79.31	11.87	Recharge shaft with Revival	OVER EXPLOITED
1237	Kalamarudur	VILUPPURAM	79.31	11.86	Recharge shaft with Revival	OVER EXPLOITED
1238	Kalamarudur	VILUPPURAM	79.32	11.86	Recharge shaft with Revival	OVER EXPLOITED
1239	Kalamarudur	VILUPPURAM	79.30	11.83	Recharge shaft with Revival	OVER EXPLOITED
1240	Kalamarudur	VILUPPURAM	79.26	11.77	Recharge shaft with Revival	OVER EXPLOITED

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1241	Kalamarudur	VILUPPURAM	79.31	11.82	Recharge shaft with Revival	OVER EXPLOITED
1242	Kalamarudur	VILUPPURAM	79.28	11.82	Recharge shaft with Revival	OVER EXPLOITED
1243	Kalamarudur	VILUPPURAM	79.29	11.81	Recharge shaft with Revival	OVER EXPLOITED
1244	Kalamarudur	VILUPPURAM	79.28	11.81	Recharge shaft with Revival	OVER EXPLOITED
1245	Kalamarudur	VILUPPURAM	79.30	11.81	Recharge shaft with Revival	OVER EXPLOITED
1246	Kalamarudur	VILUPPURAM	79.29	11.81	Recharge shaft with Revival	OVER EXPLOITED
1247	Kalamarudur	VILUPPURAM	79.27	11.81	Recharge shaft with Revival	OVER EXPLOITED
1248	Kalamarudur	VILUPPURAM	79.31	11.81	Recharge shaft with Revival	OVER EXPLOITED
1249	Kalamarudur	VILUPPURAM	79.31	11.81	Recharge shaft with Revival	OVER EXPLOITED
1250	Kalamarudur	VILUPPURAM	79.31	11.80	Recharge shaft with Revival	OVER EXPLOITED
1251	Kalamarudur	VILUPPURAM	79.33	11.79	Recharge shaft with Revival	OVER EXPLOITED
1252	Kalamarudur	VILUPPURAM	79.32	11.79	Recharge shaft with Revival	OVER EXPLOITED
1253	Kalamarudur	VILUPPURAM	79.30	11.79	Recharge shaft with Revival	OVER EXPLOITED
1254	Kalamarudur	VILUPPURAM	79.28	11.80	Recharge shaft with Revival	OVER EXPLOITED
1255	Kalamarudur	VILUPPURAM	79.28	11.79	Recharge shaft with Revival	OVER EXPLOITED
1256	Kalamarudur	VILUPPURAM	79.28	11.79	Recharge shaft with Revival	OVER EXPLOITED
1257	Kalamarudur	VILUPPURAM	79.29	11.78	Recharge shaft with Revival	OVER EXPLOITED
1258	Kalamarudur	VILUPPURAM	79.26	11.80	Recharge shaft with Revival	OVER EXPLOITED
1259	Kalamarudur	VILUPPURAM	79.27	11.79	Recharge shaft with Revival	OVER EXPLOITED
1260	Kalamarudur	VILUPPURAM	79.27	11.79	Recharge shaft with Revival	OVER EXPLOITED
1261	Kalamarudur	VILUPPURAM	79.31	11.83	Recharge shaft with Revival	OVER EXPLOITED
1262	Kalamarudur	VILUPPURAM	79.26	11.78	Recharge shaft with Revival	OVER EXPLOITED
1263	Kalamarudur	VILUPPURAM	79.27	11.77	Recharge shaft with Revival	OVER EXPLOITED
1264	Kalamarudur	VILUPPURAM	79.27	11.76	Recharge shaft with Revival	OVER EXPLOITED
1265	Kalamarudur	VILUPPURAM	79.28	11.77	Recharge shaft with Revival	OVER EXPLOITED

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1266	Kalamarudur	VILUPPURAM	79.29	11.77	Recharge shaft with Revival	OVER EXPLOITED
1267	Kalamarudur	VILUPPURAM	79.28	11.77	Recharge shaft with Revival	OVER EXPLOITED
1268	Kalamarudur	VILUPPURAM	79.29	11.76	Recharge shaft with Revival	OVER EXPLOITED
1269	Kalamarudur	VILUPPURAM	79.28	11.76	Recharge shaft with Revival	OVER EXPLOITED
1270	Kalamarudur	VILUPPURAM	79.29	11.76	Recharge shaft with Revival	OVER EXPLOITED
1271	Kalamarudur	VILUPPURAM	79.29	11.77	Recharge shaft with Revival	OVER EXPLOITED
1272	Kalamarudur	VILUPPURAM	79.31	11.76	Recharge shaft with Revival	OVER EXPLOITED
1273	Kalamarudur	VILUPPURAM	79.31	11.77	Recharge shaft with Revival	OVER EXPLOITED
1274	Kalamarudur	VILUPPURAM	79.31	11.77	Recharge shaft with Revival	OVER EXPLOITED
1275	Kandamangalam	VILUPPURAM	79.70	11.82	Nalabund	SEMI CRITICAL
1276	Kandamangalam	VILUPPURAM	79.70	11.82	Only Recharge Shaft	SEMI CRITICAL
1277	Kandamangalam	VILUPPURAM	79.70	11.81	Only Recharge Shaft	SEMI CRITICAL
1278	Kandamangalam	VILUPPURAM	79.69	11.82	Recharge shaft with Revival	SEMI CRITICAL
1279	MANALURPETTAI	VILUPPURAM	79.07	12.07	Only Recharge Shaft	SEMI CRITICAL
1280	Sathiyamangalam	VILUPPURAM	79.28	12.13	Checkdam	OVER EXPLOITED
1281	Sengurichi	VILUPPURAM	79.32	11.78	Nalabund	SEMI CRITICAL
1282	T.V.Nallur	VILUPPURAM	79.35	11.92	Checkdam	OVER EXPLOITED
1283	T.V.Nallur	VILUPPURAM	79.38	11.89	Checkdam	OVER EXPLOITED
1284	T.V.Nallur	VILUPPURAM	79.40	11.88	Checkdam	OVER EXPLOITED
1285	T.V.Nallur	VILUPPURAM	79.42	11.88	Checkdam	OVER EXPLOITED
1286	T.V.Nallur	VILUPPURAM	79.34	11.87	Checkdam	OVER EXPLOITED
1287	T.V.Nallur	VILUPPURAM	79.36	11.87	Checkdam	OVER EXPLOITED
1288	T.V.Nallur	VILUPPURAM	79.33	11.91	Nalabund	OVER EXPLOITED
1289	T.V.Nallur	VILUPPURAM	79.35	11.92	Nalabund	OVER EXPLOITED
1290	T.V.Nallur	VILUPPURAM	79.36	11.91	Nalabund	OVER EXPLOITED
1291	T.V.Nallur	VILUPPURAM	79.36	11.91	Nalabund	OVER EXPLOITED
1292	T.V.Nallur	VILUPPURAM	79.32	11.90	Nalabund	OVER EXPLOITED
1293	T.V.Nallur	VILUPPURAM	79.35	11.90	Nalabund	OVER EXPLOITED

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1294	T.V.Nallur	VILUPPURAM	79.37	11.90	Nalabund	OVER EXPLOITED
1295	T.V.Nallur	VILUPPURAM	79.37	11.90	Nalabund	OVER EXPLOITED
1296	T.V.Nallur	VILUPPURAM	79.39	11.90	Nalabund	OVER EXPLOITED
1297	T.V.Nallur	VILUPPURAM	79.40	11.90	Nalabund	OVER EXPLOITED
1298	T.V.Nallur	VILUPPURAM	79.39	11.88	Nalabund	OVER EXPLOITED
1299	T.V.Nallur	VILUPPURAM	79.39	11.88	Nalabund	OVER EXPLOITED
1300	T.V.Nallur	VILUPPURAM	79.37	11.87	Nalabund	OVER EXPLOITED
1301	T.V.Nallur	VILUPPURAM	79.33	11.89	Nalabund	OVER EXPLOITED
1302	T.V.Nallur	VILUPPURAM	79.34	11.88	Nalabund	OVER EXPLOITED
1303	T.V.Nallur	VILUPPURAM	79.32	11.88	Nalabund	OVER EXPLOITED
1304	T.V.Nallur	VILUPPURAM	79.42	11.89	Nalabund	OVER EXPLOITED
1305	T.V.Nallur	VILUPPURAM	79.41	11.88	Nalabund	OVER EXPLOITED
1306	T.V.Nallur	VILUPPURAM	79.43	11.87	Nalabund	OVER EXPLOITED
1307	T.V.Nallur	VILUPPURAM	79.33	11.87	Nalabund	OVER EXPLOITED
1308	T.V.Nallur	VILUPPURAM	79.35	11.88	Nalabund	OVER EXPLOITED
1309	T.V.Nallur	VILUPPURAM	79.33	11.88	Nalabund	OVER EXPLOITED
1310	T.V.Nallur	VILUPPURAM	79.39	11.85	Nalabund	OVER EXPLOITED
1311	T.V.Nallur	VILUPPURAM	79.39	11.83	Nalabund	OVER EXPLOITED
1312	T.V.Nallur	VILUPPURAM	79.39	11.84	Nalabund	OVER EXPLOITED
1313	T.V.Nallur	VILUPPURAM	79.41	11.89	Nalabund	OVER EXPLOITED
1314	T.V.Nallur	VILUPPURAM	79.42	11.87	Nalabund	OVER EXPLOITED
1315	T.V.Nallur	VILUPPURAM	79.32	11.90	Only Recharge Shaft	OVER EXPLOITED
1316	T.V.Nallur	VILUPPURAM	79.33	11.89	Only Recharge Shaft	OVER EXPLOITED
1317	T.V.Nallur	VILUPPURAM	79.33	11.88	Only Recharge Shaft	OVER EXPLOITED
1318	T.V.Nallur	VILUPPURAM	79.32	11.88	Only Recharge Shaft	OVER EXPLOITED
1319	T.V.Nallur	VILUPPURAM	79.33	11.87	Only Recharge Shaft	OVER EXPLOITED
1320	T.V.Nallur	VILUPPURAM	79.34	11.88	Only Recharge Shaft	OVER EXPLOITED
1321	T.V.Nallur	VILUPPURAM	79.32	11.87	Only Recharge Shaft	OVER EXPLOITED
1322	T.V.Nallur	VILUPPURAM	79.34	11.87	Only Recharge Shaft	OVER EXPLOITED
1323	T.V.Nallur	VILUPPURAM	79.34	11.87	Only Recharge	OVER EXPLOITED

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					Shaft	
1324	T.V.Nallur	VILUPPURAM	79.34	11.86	Only Recharge Shaft	OVER EXPLOITED
1325	T.V.Nallur	VILUPPURAM	79.34	11.86	Only Recharge Shaft	OVER EXPLOITED
1326	T.V.Nallur	VILUPPURAM	79.37	11.85	Only Recharge Shaft	OVER EXPLOITED
1327	T.V.Nallur	VILUPPURAM	79.38	11.85	Only Recharge Shaft	OVER EXPLOITED
1328	T.V.Nallur	VILUPPURAM	79.38	11.85	Only Recharge Shaft	OVER EXPLOITED
1329	T.V.Nallur	VILUPPURAM	79.38	11.84	Only Recharge Shaft	OVER EXPLOITED
1330	T.V.Nallur	VILUPPURAM	79.38	11.84	Only Recharge Shaft	OVER EXPLOITED
1331	T.V.Nallur	VILUPPURAM	79.38	11.84	Only Recharge Shaft	OVER EXPLOITED
1332	T.V.Nallur	VILUPPURAM	79.37	11.83	Only Recharge Shaft	OVER EXPLOITED
1333	T.V.Nallur	VILUPPURAM	79.41	11.86	Only Recharge Shaft	OVER EXPLOITED
1334	T.V.Nallur	VILUPPURAM	79.41	11.86	Only Recharge Shaft	OVER EXPLOITED
1335	T.V.Nallur	VILUPPURAM	79.37	11.88	Only Recharge Shaft	OVER EXPLOITED
1336	T.V.Nallur	VILUPPURAM	79.38	11.88	Only Recharge Shaft	OVER EXPLOITED
1337	T.V.Nallur	VILUPPURAM	79.38	11.89	Only Recharge Shaft	OVER EXPLOITED
1338	T.V.Nallur	VILUPPURAM	79.37	11.89	Only Recharge Shaft	OVER EXPLOITED
1339	T.V.Nallur	VILUPPURAM	79.40	11.88	Only Recharge Shaft	OVER EXPLOITED
1340	T.V.Nallur	VILUPPURAM	79.40	11.89	Only Recharge Shaft	OVER EXPLOITED
1341	T.V.Nallur	VILUPPURAM	79.35	11.91	Only Recharge Shaft	OVER EXPLOITED
1342	T.V.Nallur	VILUPPURAM	79.32	11.88	Recharge shaft with Revival	OVER EXPLOITED
1343	T.V.Nallur	VILUPPURAM	79.31	11.89	Recharge shaft with Revival	OVER EXPLOITED
1344	T.V.Nallur	VILUPPURAM	79.38	11.90	Recharge shaft with Revival	OVER EXPLOITED
1345	T.V.Nallur	VILUPPURAM	79.38	11.90	Recharge shaft with Revival	OVER EXPLOITED
1346	T.V.Nallur	VILUPPURAM	79.39	11.90	Recharge shaft with Revival	OVER EXPLOITED
1347	T.V.Nallur	VILUPPURAM	79.40	11.89	Recharge shaft with Revival	OVER EXPLOITED
1348	T.V.Nallur	VILUPPURAM	79.40	11.89	Recharge shaft with Revival	OVER EXPLOITED
1349	T.V.Nallur	VILUPPURAM	79.40	11.89	Recharge shaft with Revival	OVER EXPLOITED

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1350	T.V.Nallur	VILUPPURAM	79.38	11.86	Recharge shaft with Revival	OVER EXPLOITED
1351	THIRUKOILUR	VILUPPURAM	79.21	11.97	Checkdam	SEMI CRITICAL
1352	Thiyagadurgam	VILUPPURAM	79.14	11.75	Checkdam	OVER EXPLOITED
1353	Thiyagadurgam	VILUPPURAM	79.16	11.77	Checkdam	OVER EXPLOITED
1354	Thiyagadurgam	VILUPPURAM	79.15	11.78	Nalabund	OVER EXPLOITED
1355	Thiyagadurgam	VILUPPURAM	79.16	11.77	Nalabund	OVER EXPLOITED
1356	Thiyagadurgam	VILUPPURAM	79.15	11.78	Only Recharge Shaft	OVER EXPLOITED
1357	Thiyagadurgam	VILUPPURAM	79.14	11.77	Only Recharge Shaft	OVER EXPLOITED
1358	Thiyagadurgam	VILUPPURAM	79.14	11.77	Only Recharge Shaft	OVER EXPLOITED
1359	Thiyagadurgam	VILUPPURAM	79.15	11.76	Only Recharge Shaft	OVER EXPLOITED
1360	Ulundurpettai	VILUPPURAM	79.28	11.75	Nalabund	OVER EXPLOITED
1361	Ulundurpettai	VILUPPURAM	79.29	11.75	Nalabund	OVER EXPLOITED
1362	Ulundurpettai	VILUPPURAM	79.29	11.74	Nalabund	OVER EXPLOITED
1363	Ulundurpettai	VILUPPURAM	79.29	11.71	Nalabund	OVER EXPLOITED
1364	Ulundurpettai	VILUPPURAM	79.30	11.70	Nalabund	OVER EXPLOITED
1365	Ulundurpettai	VILUPPURAM	79.25	11.74	Nalabund	OVER EXPLOITED
1366	Ulundurpettai	VILUPPURAM	79.28	11.73	Nalabund	OVER EXPLOITED
1367	Ulundurpettai	VILUPPURAM	79.25	11.72	Nalabund	OVER EXPLOITED
1368	Ulundurpettai	VILUPPURAM	79.27	11.71	Nalabund	OVER EXPLOITED
1369	Ulundurpettai	VILUPPURAM	79.22	11.65	Nalabund	OVER EXPLOITED
1370	Ulundurpettai	VILUPPURAM	79.28	11.65	Nalabund	OVER EXPLOITED
1371	Ulundurpettai	VILUPPURAM	79.28	11.69	Nalabund	OVER EXPLOITED
1372	Ulundurpettai	VILUPPURAM	79.24	11.70	Nalabund	OVER EXPLOITED
1373	Ulundurpettai	VILUPPURAM	79.24	11.70	Nalabund	OVER EXPLOITED
1374	Ulundurpettai	VILUPPURAM	79.26	11.69	Nalabund	OVER EXPLOITED
1375	Ulundurpettai	VILUPPURAM	79.30	11.68	Nalabund	OVER EXPLOITED
1376	Ulundurpettai	VILUPPURAM	79.24	11.64	Only Recharge Shaft	OVER EXPLOITED
1377	Ulundurpettai	VILUPPURAM	79.22	11.70	Only Recharge Shaft	OVER EXPLOITED
1378	Ulundurpettai	VILUPPURAM	79.23	11.71	Only Recharge Shaft	OVER EXPLOITED
1379	Ulundurpettai	VILUPPURAM	79.24	11.72	Only Recharge	OVER

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					Shaft	EXPLOITED
1380	Ulundurpettai	VILUPPURAM	79.23	11.71	Only Recharge Shaft	OVER EXPLOITED
1381	Ulundurpettai	VILUPPURAM	79.24	11.71	Only Recharge Shaft	OVER EXPLOITED
1382	Ulundurpettai	VILUPPURAM	79.24	11.71	Only Recharge Shaft	OVER EXPLOITED
1383	Ulundurpettai	VILUPPURAM	79.25	11.73	Only Recharge Shaft	OVER EXPLOITED
1384	Ulundurpettai	VILUPPURAM	79.20	11.62	Only Recharge Shaft	OVER EXPLOITED
1385	Ulundurpettai	VILUPPURAM	79.20	11.63	Only Recharge Shaft	OVER EXPLOITED
1386	Ulundurpettai	VILUPPURAM	79.21	11.64	Only Recharge Shaft	OVER EXPLOITED
1387	Ulundurpettai	VILUPPURAM	79.21	11.65	Only Recharge Shaft	OVER EXPLOITED
1388	Ulundurpettai	VILUPPURAM	79.21	11.64	Only Recharge Shaft	OVER EXPLOITED
1389	Ulundurpettai	VILUPPURAM	79.23	11.64	Only Recharge Shaft	OVER EXPLOITED
1390	Ulundurpettai	VILUPPURAM	79.24	11.65	Only Recharge Shaft	OVER EXPLOITED
1391	Ulundurpettai	VILUPPURAM	79.21	11.66	Only Recharge Shaft	OVER EXPLOITED
1392	Ulundurpettai	VILUPPURAM	79.22	11.67	Only Recharge Shaft	OVER EXPLOITED
1393	Ulundurpettai	VILUPPURAM	79.22	11.66	Only Recharge Shaft	OVER EXPLOITED
1394	Ulundurpettai	VILUPPURAM	79.23	11.66	Only Recharge Shaft	OVER EXPLOITED
1395	Ulundurpettai	VILUPPURAM	79.23	11.66	Only Recharge Shaft	OVER EXPLOITED
1396	Ulundurpettai	VILUPPURAM	79.23	11.69	Only Recharge Shaft	OVER EXPLOITED
1397	Ulundurpettai	VILUPPURAM	79.23	11.69	Only Recharge Shaft	OVER EXPLOITED
1398	Ulundurpettai	VILUPPURAM	79.22	11.69	Only Recharge Shaft	OVER EXPLOITED
1399	Ulundurpettai	VILUPPURAM	79.22	11.69	Only Recharge Shaft	OVER EXPLOITED
1400	Ulundurpettai	VILUPPURAM	79.24	11.69	Only Recharge Shaft	OVER EXPLOITED
1401	Ulundurpettai	VILUPPURAM	79.25	11.69	Only Recharge Shaft	OVER EXPLOITED
1402	Ulundurpettai	VILUPPURAM	79.25	11.68	Only Recharge Shaft	OVER EXPLOITED
1403	Ulundurpettai	VILUPPURAM	79.26	11.66	Only Recharge Shaft	OVER EXPLOITED
1404	Ulundurpettai	VILUPPURAM	79.26	11.66	Only Recharge Shaft	OVER EXPLOITED
1405	Ulundurpettai	VILUPPURAM	79.26	11.66	Only Recharge Shaft	OVER EXPLOITED
1406	Ulundurpettai	VILUPPURAM	79.27	11.66	Only Recharge Shaft	OVER EXPLOITED

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1407	Ulundurpettai	VILUPPURAM	79.28	11.65	Only Recharge Shaft	OVER EXPLOITED
1408	Ulundurpettai	VILUPPURAM	79.28	11.66	Only Recharge Shaft	OVER EXPLOITED
1409	Ulundurpettai	VILUPPURAM	79.28	11.66	Only Recharge Shaft	OVER EXPLOITED
1410	Ulundurpettai	VILUPPURAM	79.28	11.66	Only Recharge Shaft	OVER EXPLOITED
1411	Ulundurpettai	VILUPPURAM	79.29	11.65	Only Recharge Shaft	OVER EXPLOITED
1412	Ulundurpettai	VILUPPURAM	79.30	11.65	Only Recharge Shaft	OVER EXPLOITED
1413	Ulundurpettai	VILUPPURAM	79.30	11.65	Only Recharge Shaft	OVER EXPLOITED
1414	Ulundurpettai	VILUPPURAM	79.30	11.66	Only Recharge Shaft	OVER EXPLOITED
1415	Ulundurpettai	VILUPPURAM	79.31	11.66	Only Recharge Shaft	OVER EXPLOITED
1416	Ulundurpettai	VILUPPURAM	79.31	11.65	Only Recharge Shaft	OVER EXPLOITED
1417	Ulundurpettai	VILUPPURAM	79.32	11.65	Only Recharge Shaft	OVER EXPLOITED
1418	Ulundurpettai	VILUPPURAM	79.32	11.65	Only Recharge Shaft	OVER EXPLOITED
1419	Ulundurpettai	VILUPPURAM	79.25	11.70	Only Recharge Shaft	OVER EXPLOITED
1420	Ulundurpettai	VILUPPURAM	79.26	11.69	Only Recharge Shaft	OVER EXPLOITED
1421	Ulundurpettai	VILUPPURAM	79.26	11.68	Only Recharge Shaft	OVER EXPLOITED
1422	Ulundurpettai	VILUPPURAM	79.26	11.68	Only Recharge Shaft	OVER EXPLOITED
1423	Ulundurpettai	VILUPPURAM	79.27	11.70	Only Recharge Shaft	OVER EXPLOITED
1424	Ulundurpettai	VILUPPURAM	79.27	11.69	Only Recharge Shaft	OVER EXPLOITED
1425	Ulundurpettai	VILUPPURAM	79.28	11.70	Only Recharge Shaft	OVER EXPLOITED
1426	Ulundurpettai	VILUPPURAM	79.28	11.69	Only Recharge Shaft	OVER EXPLOITED
1427	Ulundurpettai	VILUPPURAM	79.29	11.68	Only Recharge Shaft	OVER EXPLOITED
1428	Ulundurpettai	VILUPPURAM	79.30	11.69	Only Recharge Shaft	OVER EXPLOITED
1429	Ulundurpettai	VILUPPURAM	79.26	11.73	Only Recharge Shaft	OVER EXPLOITED
1430	Ulundurpettai	VILUPPURAM	79.27	11.73	Only Recharge Shaft	OVER EXPLOITED
1431	Ulundurpettai	VILUPPURAM	79.28	11.72	Only Recharge Shaft	OVER EXPLOITED
1432	Ulundurpettai	VILUPPURAM	79.29	11.73	Only Recharge Shaft	OVER EXPLOITED
1433	Ulundurpettai	VILUPPURAM	79.29	11.72	Only Recharge Shaft	OVER EXPLOITED
1434	Ulundurpettai	VILUPPURAM	79.26	11.74	Only Recharge	OVER EXPLOITED

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					Shaft	
1435	Ulundurpettai	VILUPPURAM	79.26	11.74	Only Recharge Shaft	OVER EXPLOITED
1436	Ulundurpettai	VILUPPURAM	79.26	11.76	Only Recharge Shaft	OVER EXPLOITED
1437	Ulundurpettai	VILUPPURAM	79.26	11.76	Only Recharge Shaft	OVER EXPLOITED
1438	Ulundurpettai	VILUPPURAM	79.27	11.74	Only Recharge Shaft	OVER EXPLOITED
1439	Ulundurpettai	VILUPPURAM	79.28	11.74	Only Recharge Shaft	OVER EXPLOITED
1440	Ulundurpettai	VILUPPURAM	79.28	11.74	Only Recharge Shaft	OVER EXPLOITED
1441	Ulundurpettai	VILUPPURAM	79.29	11.75	Only Recharge Shaft	OVER EXPLOITED
1442	Ulundurpettai	VILUPPURAM	79.30	11.75	Only Recharge Shaft	OVER EXPLOITED
1443	Ulundurpettai	VILUPPURAM	79.30	11.75	Only Recharge Shaft	OVER EXPLOITED
1444	Ulundurpettai	VILUPPURAM	79.26	11.77	Recharge shaft with Revival	OVER EXPLOITED
1445	Ulundurpettai	VILUPPURAM	79.24	11.75	Recharge shaft with Revival	OVER EXPLOITED
1446	Ulundurpettai	VILUPPURAM	79.23	11.70	Recharge shaft with Revival	OVER EXPLOITED
1447	Ulundurpettai	VILUPPURAM	79.26	11.69	Recharge shaft with Revival	OVER EXPLOITED
1448	Ulundurpettai	VILUPPURAM	79.22	11.66	Recharge shaft with Revival	OVER EXPLOITED
1449	Ulundurpettai	VILUPPURAM	79.23	11.65	Recharge shaft with Revival	OVER EXPLOITED
1450	Ulundurpettai	VILUPPURAM	79.29	11.65	Recharge shaft with Revival	OVER EXPLOITED
1451	Ulundurpettai	VILUPPURAM	79.29	11.66	Recharge shaft with Revival	OVER EXPLOITED
1452	Ulundurpettai	VILUPPURAM	79.26	11.65	Recharge shaft with Revival	OVER EXPLOITED
1453	Ulundurpettai	VILUPPURAM	79.27	11.64	Recharge shaft with Revival	OVER EXPLOITED
1454	VILLUPURAM	VILUPPURAM	79.47	11.89	Checkdam	CRITICAL
1455	VILLUPURAM	VILUPPURAM	79.46	11.92	Checkdam	CRITICAL
1456	VILLUPURAM	VILUPPURAM	79.50	11.87	Checkdam	CRITICAL
1457	VILLUPURAM	VILUPPURAM	79.51	11.89	Checkdam	CRITICAL
1458	VILLUPURAM	VILUPPURAM	79.44	11.88	Nalabund	CRITICAL
1459	VILLUPURAM	VILUPPURAM	79.46	11.88	Nalabund	CRITICAL
1460	VILLUPURAM	VILUPPURAM	79.49	11.89	Nalabund	CRITICAL
1461	VILLUPURAM	VILUPPURAM	79.50	11.88	Nalabund	CRITICAL
1462	VILLUPURAM	VILUPPURAM	79.49	11.89	Nalabund	CRITICAL
1463	VILLUPURAM	VILUPPURAM	79.46	11.89	Nalabund	CRITICAL
1464	VILLUPURAM	VILUPPURAM	79.45	11.90	Nalabund	CRITICAL
1465	VILLUPURAM	VILUPPURAM	79.47	11.89	Nalabund	CRITICAL

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1466	VILLUPURAM	VILUPPURAM	79.49	11.87	Nalabund	CRITICAL
1467	VILLUPURAM	VILUPPURAM	79.49	11.87	Nalabund	CRITICAL
1468	VILLUPURAM	VILUPPURAM	79.49	11.90	Nalabund	CRITICAL
1469	VILLUPURAM	VILUPPURAM	79.44	11.89	Nalabund	CRITICAL
1470	VILLUPURAM	VILUPPURAM	79.45	11.89	Nalabund	CRITICAL
1471	VILLUPURAM	VILUPPURAM	79.52	11.89	Nalabund	CRITICAL
1472	VILLUPURAM	VILUPPURAM	79.51	11.87	Nalabund	CRITICAL
1473	VILLUPURAM	VILUPPURAM	79.52	11.90	Nalabund	CRITICAL
1474	VILLUPURAM	VILUPPURAM	79.46	11.91	Nalabund	CRITICAL
1475	VILLUPURAM	VILUPPURAM	79.48	11.91	Nalabund	CRITICAL
1476	VILLUPURAM	VILUPPURAM	79.48	11.91	Nalabund	CRITICAL
1477	VILLUPURAM	VILUPPURAM	79.48	11.92	Nalabund	CRITICAL
1478	VILLUPURAM	VILUPPURAM	79.52	11.91	Nalabund	CRITICAL
1479	VILLUPURAM	VILUPPURAM	79.48	11.94	Nalabund	CRITICAL
1480	VILLUPURAM	VILUPPURAM	79.45	11.93	Nalabund	CRITICAL
1481	VILLUPURAM	VILUPPURAM	79.45	11.93	Nalabund	CRITICAL
1482	VILLUPURAM	VILUPPURAM	79.45	11.97	Nalabund	CRITICAL
1483	VILLUPURAM	VILUPPURAM	79.45	11.96	Nalabund	CRITICAL
1484	VILLUPURAM	VILUPPURAM	79.46	11.95	Nalabund	CRITICAL
1485	VILLUPURAM	VILUPPURAM	79.49	11.95	Nalabund	CRITICAL
1486	VILLUPURAM	VILUPPURAM	79.46	11.94	Nalabund	CRITICAL
1487	VILLUPURAM	VILUPPURAM	79.52	11.95	Nalabund	CRITICAL
1488	VILLUPURAM	VILUPPURAM	79.42	11.90	Only Recharge Shaft	CRITICAL
1489	VILLUPURAM	VILUPPURAM	79.45	11.88	Only Recharge Shaft	CRITICAL
1490	VILLUPURAM	VILUPPURAM	79.43	11.90	Only Recharge Shaft	CRITICAL
1491	VILLUPURAM	VILUPPURAM	79.45	11.91	Only Recharge Shaft	CRITICAL
1492	VILLUPURAM	VILUPPURAM	79.45	11.90	Only Recharge Shaft	CRITICAL
1493	VILLUPURAM	VILUPPURAM	79.45	11.89	Only Recharge Shaft	CRITICAL
1494	VILLUPURAM	VILUPPURAM	79.46	11.90	Only Recharge Shaft	CRITICAL
1495	VILLUPURAM	VILUPPURAM	79.47	11.91	Only Recharge Shaft	CRITICAL
1496	VILLUPURAM	VILUPPURAM	79.47	11.92	Only Recharge Shaft	CRITICAL
1497	VILLUPURAM	VILUPPURAM	79.45	11.92	Only Recharge Shaft	CRITICAL
1498	VILLUPURAM	VILUPPURAM	79.45	11.92	Only Recharge Shaft	CRITICAL
1499	VILLUPURAM	VILUPPURAM	79.48	11.90	Only Recharge Shaft	CRITICAL
1500	VILLUPURAM	VILUPPURAM	79.48	11.90	Only Recharge Shaft	CRITICAL
1501	VILLUPURAM	VILUPPURAM	79.50	11.89	Only Recharge Shaft	CRITICAL
1502	VILLUPURAM	VILUPPURAM	79.49	11.92	Only Recharge Shaft	CRITICAL

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1503	VILLUPURAM	VILUPPURAM	79.50	11.90	Only Recharge Shaft	CRITICAL
1504	VILLUPURAM	VILUPPURAM	79.50	11.91	Only Recharge Shaft	CRITICAL
1505	VILLUPURAM	VILUPPURAM	79.50	11.91	Only Recharge Shaft	CRITICAL
1506	VILLUPURAM	VILUPPURAM	79.50	11.92	Only Recharge Shaft	CRITICAL
1507	VILLUPURAM	VILUPPURAM	79.50	11.93	Only Recharge Shaft	CRITICAL
1508	VILLUPURAM	VILUPPURAM	79.48	11.93	Only Recharge Shaft	CRITICAL
1509	VILLUPURAM	VILUPPURAM	79.48	11.93	Only Recharge Shaft	CRITICAL
1510	VILLUPURAM	VILUPPURAM	79.51	11.90	Only Recharge Shaft	CRITICAL
1511	VILLUPURAM	VILUPPURAM	79.50	11.91	Only Recharge Shaft	CRITICAL
1512	VILLUPURAM	VILUPPURAM	79.51	11.91	Only Recharge Shaft	CRITICAL
1513	VILLUPURAM	VILUPPURAM	79.51	11.92	Only Recharge Shaft	CRITICAL
1514	VILLUPURAM	VILUPPURAM	79.47	11.94	Only Recharge Shaft	CRITICAL
1515	VILLUPURAM	VILUPPURAM	79.46	11.94	Only Recharge Shaft	CRITICAL
1516	VILLUPURAM	VILUPPURAM	79.45	11.94	Only Recharge Shaft	CRITICAL
1517	VILLUPURAM	VILUPPURAM	79.45	11.94	Only Recharge Shaft	CRITICAL
1518	VILLUPURAM	VILUPPURAM	79.46	11.95	Only Recharge Shaft	CRITICAL
1519	VILLUPURAM	VILUPPURAM	79.46	11.95	Only Recharge Shaft	CRITICAL
1520	VILLUPURAM	VILUPPURAM	79.48	11.94	Only Recharge Shaft	CRITICAL
1521	VILLUPURAM	VILUPPURAM	79.52	11.94	Only Recharge Shaft	CRITICAL
1522	VILLUPURAM	VILUPPURAM	79.51	11.95	Only Recharge Shaft	CRITICAL
1523	VILLUPURAM	VILUPPURAM	79.47	11.95	Only Recharge Shaft	CRITICAL
1524	VILLUPURAM	VILUPPURAM	79.47	11.95	Only Recharge Shaft	CRITICAL
1525	VILLUPURAM	VILUPPURAM	79.45	11.96	Only Recharge Shaft	CRITICAL
1526	VILLUPURAM	VILUPPURAM	79.46	11.97	Only Recharge Shaft	CRITICAL
1527	VILLUPURAM	VILUPPURAM	79.44	11.89	Recharge shaft with Revival	CRITICAL
1528	VILLUPURAM	VILUPPURAM	79.44	11.90	Recharge shaft with Revival	CRITICAL
1529	VILLUPURAM	VILUPPURAM	79.46	11.88	Recharge shaft with Revival	CRITICAL

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1530	VILLUPURAM	VILUPPURAM	79.49	11.88	Recharge shaft with Revival	CRITICAL
1531	VILLUPURAM	VILUPPURAM	79.48	11.89	Recharge shaft with Revival	CRITICAL
1532	VILLUPURAM	VILUPPURAM	79.52	11.90	Recharge shaft with Revival	CRITICAL
1533	VILLUPURAM	VILUPPURAM	79.52	11.91	Recharge shaft with Revival	CRITICAL
1534	VILLUPURAM	VILUPPURAM	79.47	11.92	Recharge shaft with Revival	CRITICAL
1535	VILLUPURAM	VILUPPURAM	79.49	11.92	Recharge shaft with Revival	CRITICAL
1536	VILLUPURAM	VILUPPURAM	79.50	11.93	Recharge shaft with Revival	CRITICAL
1537	VILLUPURAM	VILUPPURAM	79.53	11.91	Recharge shaft with Revival	CRITICAL
1538	VILLUPURAM	VILUPPURAM	79.53	11.93	Recharge shaft with Revival	CRITICAL
1539	VILLUPURAM	VILUPPURAM	79.51	11.95	Recharge shaft with Revival	CRITICAL
1540	VILLUPURAM	VILUPPURAM	79.45	11.96	Recharge shaft with Revival	CRITICAL