GOVERNMENT OF KERALA

PERSONNEL& ADMINISTRATIVE REFORMS DEPARTMENT

WORK STUDY REPORT ON
GROUND WATER DEPARTMENT IN KERALA
2013

WORK STUDY REPORT
ON
GROUND WATER DEPARTMENT

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CHAPTER-1

INTRODUCTION

Prior to 01.01.1978 a 'Ground Water Wing' had been functioning under the Agriculture Department in Kerala. As per G.O.(Ms) No. 283/77/AD dated 28.09.1977 Government ordered, inter-alia, that the Ground Water wing in the Agriculture Department will be separated from the Agriculture Department and a new Department viz. 'Ground Water Department' will be formed. As per G.O.(Rt) No. 3421/77/AD dated 02.12.1977 Government ordered that the Ground Water Department will be formed with effect from 01.01.1978.

Genesis of the Study

1.1 Work Study in the Ground Water Department of Government of Kerala was initiated by the Personnel and Administrative Reforms Department, based on the representation filed by some of the Ministerial staff of that Department and the recommendation made by the Administrative Department (i.e. Water Resources Department).

1.2 The gist of the above representation is as follows:

1	Even though more than 35 years elapsed since the institution of the Department, no restructuring of the Department is made, as far as the Ministerial Staff of the Department is concerned;
2	There is a little scope of promotion for Ministerial Staff, as compared to other category of employees;
3	The persons recruited through the Public Service Commission as Lower Division Clerk remain as Lower Division Clerk or Upper Division Clerk in their entire period of service till retirement;
4	The strength of ministerial staff is far less considering the total work load of the Ministerial Staff;

1.3 In the report on the above representation, the Director of Ground Water Department stated as follows:

The staff pattern in the Ground Water Department, viz. the Directorate, 14 District Offices and the Workshop and Stores at Kollam, was fixed during 1983. Even though many schemes are implemented under the department over the years, the staff pattern of the ministerial staff has not been reviewed till date. In district offices, the clerical works are supervised by the District Officers who belong to technical wing. These technical officers have to supervise drilling and groundwater investigation works. This situation leads to hardship in project implementation viz. preparation of estimates, purchase etc. In the Directorate of Ground Water Department, a post each of Senior Superintendent, Junior Superintendent, and a Head Clerk are available for supervising the ministerial wing. Two clerks and a typist are posted to deal with the administrative matters in each district office except the District Office at Kozhikode. Hence, in order to train and equip the new entrants in the administrative matters, a post each of Senior Superintendent in the supervisory cadre has to be created in each district office.

In the Directorate of Ground Water Department, where the establishment matters of all the staff are dealt with, it is inevitable to create a post each of Senior Superintendent and Fair copy superintendent.

A post of Administrative Officer is available in the Directorate of Ground Water Department. Administrative Officers of the general service or Under Secretaries of General Administration Department of Government Secretariat are posted in this post. But there is a general tendency that these officers are get transferred from the department, immediately after joining duty. This leads to a setback for efficient and proper functioning of the department. Therefore, in order to input the officers who are posted from other department and thereby creating an efficient environment, a post of

Administrative Assistant is inevitable in the Directorate.

There exists a post of Finance Officer in the Directorate of Ground Water Department. Deputy Secretaries of Finance Department in the Government Secretariat are posted in this post. Once they attain necessary knowledge on the day to day affairs of the Department, they usually leave the Department consequent on promotion. This also creates lot of hardship to the Department. The day to day affairs of the Department are carried out based on budget outlay. Even though transactions to the tune of Crores of Rupees are to be handled, there is only one Head Clerk in the Department to render necessary support to the Finance Officer. Hence a post of Accounts Officer is necessary in the Finance Wing of the Directorate.

In view of the pathetic situation being faced by the ministerial staff of the Department and to improve the efficiency and effectiveness of the Department, the Director of Ground Water Department requested to create the following posts:

Directorate			
	Senior superintendent	-	2
	Administrative Assistant	-	1
	Accounts Officer	-	1
	Junior Superintendent	-	1
	Head Clerk	-	1

In addition to the above, the Director has requested to create a post each of Senior Superintendent in all the 14 District Offices and in the office of Workshop and Store at Kollam.

According to the Director, since 2 officers of the ministerial staff are drawing salary in the scale of pay equivalent to the Senior superintendent, 10 and 5 officers are drawing that of Junior Superintendent and Head Clerk, respectively, the additional commitment to

Government on account of the creation of the above posts will be less than 10 Lakh per annum.

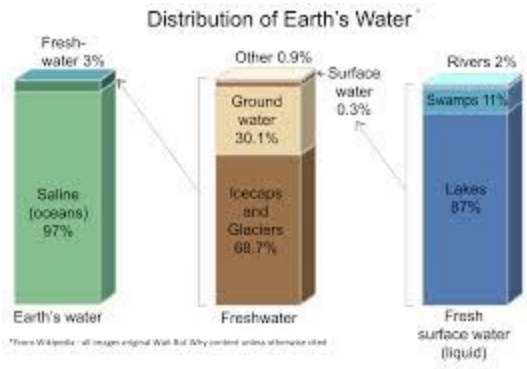
1.4 When the matter, of creation of posts, was taken up with the Finance Department by the Administrative Department (i.e. Water Resources Department), the Finance Department remarked as follows:

"1983- ൽ ഭൂജല വകുപ്പ് തുടങ്ങിയ കാലത്ത് അനുവദിച്ചിട്ടുള്ള തസ്തികകളാണ് ഇപ്പോഴും നിലനില്ക്കുന്നതെന്നും എന്നാൽ പുതിയ പദ്ധതികൾ ആവിഷ്കരിക്കുന്നുണ്ടെങ്കിലും തസ്തികകളുടെ പുന:പരിശോധന ഇതുവരെയും നടന്നിട്ടില്ല എന്നു റിപ്പോർട്ട് ചെയ്തിരിക്കുന്ന സാഹചര്യത്തിൽ P&ARD യുടെ Work Study Report ലഭ്യമാക്കാൻ ഭരണവകുപ്പിനോടാവശ്യപ്പെടുന്നു."

1.5 Accordingly, the Administrative Department (i.e. Water Resources Department) has proposed this Department to conduct Work Study for the said purpose.

Importance of Water

1.6 With two third of the earth's surface is covered and the human body consisting of 75 percent, it is evident that water is one of the prime elements responsible for life on earth. It covers 71% of the earth's surface. Water circulates through the land just as it does through the human body, transporting, dissolving, replenishing nutrients and organic matter, while carrying away waste material.



1.7 Water is vital for all known forms of life. On Earth, 96.5% of water is found in seas and oceans, 1.7% in groundwater, 1.7% in glaciers and the ice caps of Antarctica and Greenland, a small fraction in other large water bodies, and 0.001% in the air as vapour, clouds (formed of solid and liquid water particles suspended in air), and precipitation. **Only 2.5% of the Earth's water is freshwater, and 98.8% of that**

water is in ice and groundwater. Less than 0.3% of all freshwater is in rivers, lakes, and the atmosphere, and an even smaller amount of the Earth's freshwater (0.003%) is contained within biological bodies and manufactured products.

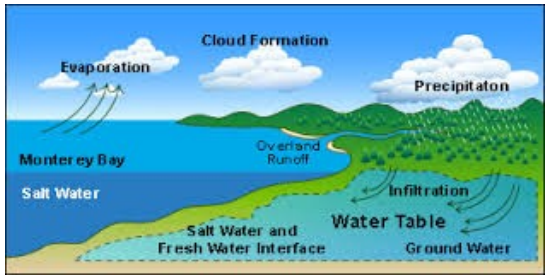
1.8 Safe drinking water is essential to humans and other lifeforms even though it provides no calories or organic nutrients. Access to safe drinking water has improved over the last decades in almost every part of the world, but approximately one billion people still lack access to safe water and over 2.5 billion lack access to adequate sanitation. There is a clear correlation between access to safe water and GDP per capita. However, some observers have estimated that by 2025 AD, more than half of the world population will be facing water-based vulnerability. A report, issued in November 2009, suggests that by 2030, in some developing regions of the world, water demand will exceed supply by 50%. It is also said that the future wars will be fought for water. Water plays an important role in the world economy, as it functions as a solvent for a wide variety of chemical substances and facilitates industrial cooling and transportation. Approximately 70% of the fresh water used by humans goes to agriculture.


20 വർഷം കഴിഞ്ഞ് ഇന്ത്യക്ക് വെള്ളം ഇറക്കുമതി ചെയ്യേണ്ടിവരും


വരാൻപോകുന്ന യുദ്ധം ജലത്തിന് വേണ്ടിയുള്ളത്: ഒ. രാജഗോപാൽ

പൊതുമേഖലാ സ്ഥാപനങ്ങളുടെ ഭൂമിവാടക കൂട്ടുന്നു

1.9 The water or hydrologic cycle is a major driving force on our planet. Water is in constant motion, evaporating into the atmosphere from oceans, lakes, rivers and streams. When the atmosphere can no longer support the moisture within the clouds, we experience rain, snow, hail, or sleet. Some water is locked in the form of ice at the polar caps and in glaciers. Water melts in the spring, along with rainwater filtrates through the earth as groundwater (subsurface) or makes its way back to the sea (surface). The oceans contain most of the water, but it is salt water which is unusable by most organisms. Only pure H_2O (water) can interact with organisms.



1.10 Water is a remarkable solvent, where most elements and compounds can dissolve in its powerful molecular structure. Gases such as oxygen and carbon dioxide, can also dissolve, making it readily available for photosynthetic and non-photosynthetic organisms to use. Everything that defines as life happens by the actions of proteins in water. Directly or indirectly, water affects all facets of life. Without it, there would be no vegetation on land, no oxygen for animals to breathe and the planet would look entirely different than it does today. Water is necessary to keep people's bodies and the environment healthy and should be valued and protected as the precious resource.

1.11 By the end of the Ice Age around 10,000 B.C, when the ice smelted, it instigated flooding to cover the lowland extents and different plants were emerged. People started to farm animals and crops. The changing climate created an environment which fortified people to settle in one place. The spreading out of agriculture helped people to settle in villages and it set off communities. The agrarian life made it possible to build villages, cities and eventually states, all of which were exceedingly dependent on water. This shaped a brand new relation between humans and water.

1.12 The ancient civilizations were built around rivers as it distributed water for farming crops which had become a catalyst for growth of each civilization. The rivers gave rise to a massive agricultural system, resulting in one of the highest recorded population densities of that time. Civilizations are constrained directly by the quality and quantity of available safe drinking and subsistence water. The realization of the significance of pure water for people is evident already from the myths of ancient cultures. Water has played a role not only in the history of countries, but in religion, mythology, and art. Religious cleanliness and water were imperative in various ancient veneration. Many religions have considered cleanses of the soul through holy water. They are also constrained indirectly by the influence of water on food, energy, transportation, and industry. Human societies have throughout history found new means to secure accessibility of water where they settled. They have formulated ingenious methods to harvest, transport, and store rainwater, spring water, groundwater, and even air moisture. Whole urban centres were built by considering the location and availability of drinking water. The place of gathering was around the wells.


Indus Valley Civilisation Excavation

1.13 Over the course of history, massive droughts wiped out civilizations. Numerous civilizations have peaked and then gradually fettered out or even disappeared abruptly. In many cases, the cause of both their rise and disintegration was the same: Water. This exquisite resource has been a driving factor of progress in the past and will prove to be a

determining factor for development in the future as well.

Water resources

1.14 Water resources are the sources of water that are useful or potentially useful. Uses of water include agricultural, industrial, household, recreational and environmental activities. The main sources of fresh water are as follows:

Surface water

1.15 Surface water is water in a river, lake or fresh water wetland. Surface water is naturally replenished by precipitation and naturally lost through discharge to the ocean, evaporation. Although the only natural input to any surface water system is precipitation within its watershed.

Groundwater

1.16 Groundwater is water that exists in the pore spaces and fractures in rock and sediment underneath the earth's surface. It originates as rainfall or snow, and then moves through the soil into the groundwater system, where it eventually makes its way back to surface streams, lakes, or oceans. The upper surface of groundwater is the water table. Groundwater is a long-term reservoir of the natural water cycle, as opposed to short term water reservoirs like the atmosphere and fresh surface water.

Groundwater Resources

1.17 The water cycle is the perpetual movement of water on earth. The sun’s heat evaporates water from open water bodies and land. The water vapour rises into the atmosphere and condenses to form clouds with lower air temperature. Precipitation falls back down to earth under gravity as rain, hail or snow. Precipitation may return to the atmosphere through evaporation; contribute directly to surface water bodies, glaciers or snow; fall on the landscape and run-off to streams and rivers that feed into the seas;

infiltrate into the ground and be taken up by plants and returned to the atmosphere through transpiration; and permeate into the ground to recharge groundwater systems. As part of the water cycle, precipitation infiltrates the ground and permeates down until it reaches a depth where all the fractures, cracks and pore spaces are saturated with water called an aquifer. It is stored in and moves slowly through geologic formations of soil, sand and rocks and the water is called groundwater. The water accumulates or flows beneath the earth's surface, filling the porous spaces in soil, sediment, and rocks. Water found in the spaces between soil particles and cracks in rocks underground located in the saturation zone. Cracks in rocks can be due to joints, faults, etc. An aquifer may be broadly defined as saturated fractured rock or sand from which usable volumes of groundwater can be pumped.

1.18 Groundwater flows from high elevation to low elevation and from high pressure to low pressure. There are local, intermediate and regional groundwater flow systems. Groundwater residence times may range from tens to tens of thousands of years.

Recharge of Groundwater

1.19 Recharge is the process whereby groundwater is replenished by water draining into the groundwater system. It is naturally refilled from directly above, as surface water from precipitation, streams, and rivers infiltrates into the ground. It does not include water held in the soil in the unsaturated zone that may be evaporated, taken up by plants, or discharge at topographic lows. Groundwater can be recharged from rainfall, irrigation infiltration or leakage from surface water bodies (e.g. stream, channel, lake).

1.20 Where the groundwater level is higher than the surface water level groundwater can discharge into a stream (called a gaining stream) where the surface water level is higher than the groundwater level the river can leak to recharge the groundwater system (losing stream). Groundwater can discharge to a stream in some places and leak back into the groundwater system in others. The flow of water between the surface water and the aquifer is called the seepage flux. Seepage flux is largely

controlled by the hydraulic gradient between the surface water level and the groundwater level and the hydraulic properties of the aquifer, as well as the geological material separating the aquifer from the surface water feature.

Importance of Groundwater

1.21 Groundwater supports a significant amount of agricultural activity. It is an essential source of water for domestic purposes to a number of settlements across the State. Groundwater is also an important environmental asset that provides base flow to streams and supports wetlands and other groundwater dependent ecosystems. It is a highly important source of domestic water supply. In India, roughly 80% of rural water supply for domestic uses is met from groundwater. The wells in villages and towns free people, particularly women, from long daily walks to fetch water from springs or rivers for livestock and domestic uses. This frees time and labour for other activities. Furthermore, since water no longer has to be carried over long distances, more is often used. This can have major health benefits. In addition, because of the filtering nature of the soil and frequent long residence time underground, groundwater is commonly much cleaner than surface sources.

1.22 Groundwater is a key resource for poverty alleviation and economic development. Evidence indicates that improved water sources generate many positive externalities in the overall household micro-economy. In areas dependent on irrigated agriculture, the reliability of groundwater sources and the high crop yields generally achieved as a result often enable farmers with small land holdings to increase income. In India small and marginal farmers (those having less than 2 hectares) own 29% of the agricultural area. Their share in net area irrigated by wells is, however, 38.1 % and they account for 35.3 % of the tube wells fitted with electric pump sets.

1.23 Recent studies show that groundwater irrigation has surpassed surface irrigation as the primary source of food production and income generation in many rural areas. Thus, in relation to operational area, small and marginal farmers tend to have proportionally more irrigated land than larger farmers. With productivity on irrigated lands being much higher than that on non-irrigated tracts, better access to irrigation for small and marginal farmers can significantly reduce poverty.

Effects of overexploitation of groundwater

1.24 The over extraction of groundwater i.e. excessive withdrawal beyond the normal recharge in any given area creates many harmful effects which could be identified as:

- Continuous lowering of water levels (Both pre-monsoon and post-monsoon)

- Lowering of pump sets, causing low efficiency,higher cost of operation
- Reduction of yields of wells, well interference due to close spacing of wells, severe drinking water scarcity in summer months.
- Deepening of wells and increase in cost of ground-water extraction
- Damage to aquifers due to compaction, risk of ground subsidence due to inter relationship between withdrawal and downward trend in water levels due to overdraft conditions.
- Total collapse of operation & management system of groundwater resource of the basin or water-shed and disturbed planned and sustained development and regulatory system in the area
- Salt water intrusion

Groundwater Scenario of India

1.25 There is evidence for the use of groundwater through dug wells in India during prehistoric era. Rapid use of groundwater for irrigation purpose in India started during the beginning of Five Year Plans in 1951. There has been large scale increase in the growth of groundwater abstraction structures during the period from 1950. The number of pumps fitted in wells have also increased to a great extent.

1.26 There are certain areas in the country facing serious problems of declining water table because of over exploitation of groundwater resources. Decline of water table of more than four metres has been observed during the last 20 years in many States of India.

Groundwater Resource of Kerala

1.27 The terrain of Kerala can be broadly divided into two vis a vis the crystalline terrain (hard rock occurring below top soil/ laterite as in Mid lands and High lands) and the sedimentary area (the coastal belt). The crystalline terrain constitutes more than 80% of the land area of the State.

1.27.1 In hard rock terrain, comprising weathered crystallines and laterites, groundwater occurs under phreatic conditions in the weathered residuum and the shallow fractures hydraulically connected to it, whereas it is under semi confined to confined conditions in the deep fracture zones. In the alluvial terrain, groundwater in the shallow aquifer systems is in phreatic condition. Granular zones in the tertiary sedimentary formations at deeper levels form potential confined to semi confined aquifers.

1.27.2 Groundwater has been the main source for meeting the domestic needs of more than 80% of rural and 50% of urban population besides, fulfilling the irrigation needs of around 50% of irrigated agriculture. The ease and simplicity of its extraction has played an important role in its development. Recently, problems of decline in water table, contamination of groundwater, seawater intrusion etc. are being reported at many places.

1.28 Open wells (also termed as dug wells) are the major groundwater extraction structures in Kerala. The open well density in Kerala is perhaps the highest in the

country – 200 wells per sq. km in the coastal region, 150 wells per sq. km in the midland and 70 wells per sq. km in the high land. The groundwater level receding drastically during the summer months and drying up of wells are common features of the groundwater levels in many parts of Kerala.

Sources of groundwater in Kerala

1.29 The major sources of groundwater in Kerala are Open well, Bore well, Tube well, Filter point well, Dug cum bore well and infiltration gallery.

Open Well

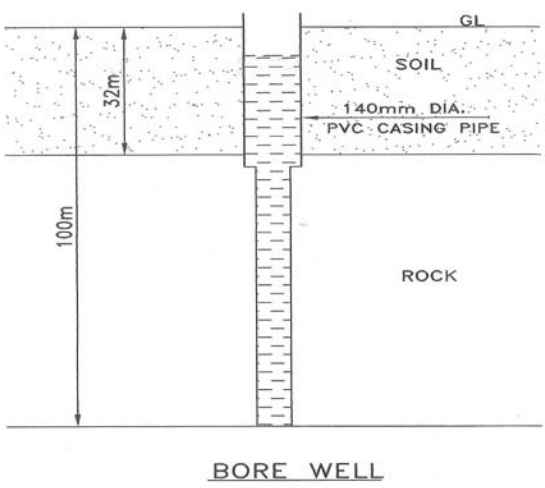
1.30 An open well is one of the oldest hydraulic inventions of mankind dating back to the Harappan civilisation. Open wells are artificial opening in the ground made for the purposes of extracting and using groundwater.

1.31 Open wells are usually refers to the most basic type of well and are common in Kerala because it is cheap and easy to dig. It possess with a cylindrical shaft dug into the ground using hand tools, with an opening that is not covered by a permanent cap. Open wells are almost always water table wells,

meaning they are made just deep enough to reach the water table, allowing groundwater to fill the bottom of the well. They depend entirely on the natural seepage from the penetrated portions of water table aquifers. This type of well commonly has a diameter of at least 3 or 4 feet (0.9-1.2m), making it large enough for at least one person to stand in the well shaft while it's being constructed, and is usually no deeper than 200 feet (60m).

1.32 However, they can pose health hazards because of possible water contamination, and because animals and children can fall into the well and die from injury or drowning.

Bore Well

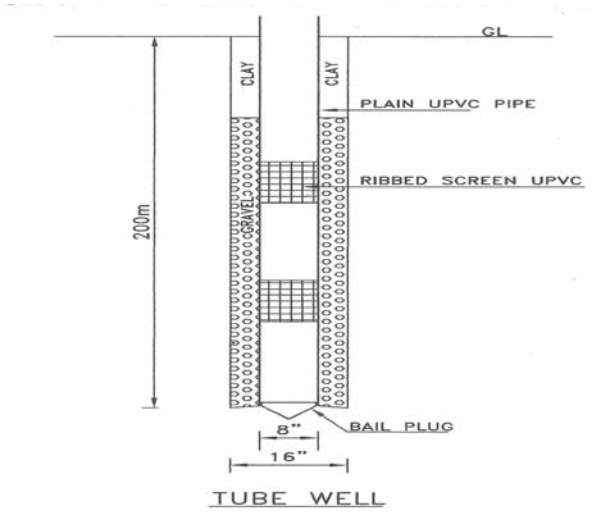


BORE WELL

1.33 A bore well is a well of 4 ½" & 6" in diameter drilled into the earth for retrieving water. A bore well is cased in the region of loose subsoil strata open in hard rock or in crystalline rock. High grade PVC pipes are used for casing in bore wells. The depth of a bore well can vary from 150 feet to 1500 feet. A bore well is drilled with casing pipe put only up to the soil-rock boundary and this is done normally for shallow depths in hard rock or in crystalline rock. The bore well water is purer than fresh river or lake water. It will still have dissolved solids and salts and minerals. Some of the bore well water will be hard water.

1.34 Most commonly, submersible pumps, hand pumps and compressor pumps are used to discharge water from bore wells. It depends upon the availability of water & the depth of bore well. Testing can be done for checking the discharge quantity of water from the bore well.

Tube well



TUBE WELL

1.35 A tube well differs from bore well in such a way that the casing pipe is put throughout the depth , whereas, in bore well the casing pipe is put only up to the soil-rock boundary. In Kerala, tube wells are usually dug in water logged areas in Alappuzha district and coastal areas. Rotary Rigs are used to dig tube wells. In

some areas of Kerala, combination of bore and tube well are required to be dug in view of the peculiar nature of the soil.

Filter Point Well

1.36 Filter point wells are dug using an attachment mounted to tractors. The diameter of filter point well is 7.5 to 10 cm and the depth is between 7 to 12 meter. The cost for digging a filter point well varies from Rs. 8000 to 12,000 depending on the depth and size of the filter point.

Dug-cum- bore well

1.37 It is a combination of open well and bore well. In dug-cum-bore well, the bore is made below the dug section of the well. In these types of wells, usually vertical bore is provided to augment the yield of the open well.

Infiltration gallery

1.38 Infiltration Galleries are capable of supplying large quantities of water, and are used where wells are unable to supply water needs. They may be used to collect water from the aquifer underlying a river. An infiltration gallery may also be the best way to withdraw water from a thin aquifer or lens of fresh water overlying saline water. It is generally easier to install a gallery adjacent to the water source. Galleries located under the water source have higher yields. The yield will drop over time, however, as sedimentation

reduces the hydraulic conductivity of the surrounding filter pack. They can also be sited in areas where riverbanks are too high to allow manual or motorized suction pumps to operate. There should be water remaining in the riverbed throughout the dry season.

Factors affecting Groundwater recharge in Kerala

1.39 Urbanisation and developmental activities (viz. Construction of buildings and other structures, road tarring and cementing, pavement of tiles etc.) add impervious surfaces that impede natural recharge. Other man made activities affecting natural recharge are soil erosion consequent on deforestation, unscientific agricultural activities, sand and earth mining, quarrying, destruction of hilly tracts etc.

Sources of Groundwater contamination

1.40 Main sources of groundwater contamination are as follows:

- storage tanks: Leakage of storage tanks containing petroleum products, oil and lubricants, chemicals etc.
- Septic System: Septic Systems used by homes, offices and other building that are not connected to sewer system. Improperly designed, located, constructed or maintained septic system contaminates groundwater.
- Hazardous wastes: industrial and domestic wastes, pesticides and fertilizers
- Land fills: are the places where garbage is berried. Contaminants from land fill (car battery, acids, paints, house hold cleaning agents etc. pollute groundwater.
- Atmospheric contamination: Since groundwater is a part of hydrological cycle, contaminants of other part of the cycle such as atmosphere or surface water is eventually transferred in to groundwater.

Deterioration of Groundwater quality in Kerala

1.41 Open wells are the major source of drinking water in Kerala. In general, groundwater quality of Kerala is good. Of late, these precious resources are getting contaminated by various effluents and other biological hazards. Open wells of Kerala

have the problem of bacteriologic contamination. Studies have shown that faecal contamination is present in 95% of drinking water wells.

1.42 Kerala is one among the thickly populated States in India. As a result the rivers, ponds, wells, tanks and streams of Kerala have been increasingly polluted by industrial and domestic wastes, pesticides and fertilizers. Industries discharge hazardous

pollutants like phosphates, sulphides, fluorides, heavy metals into the water bodies. Polythene carry bags, E-wastes and other biological wastes (mostly from slaughter houses) are other hazardous pollutants which pollute the groundwater.

CHAPTER-2

METHODOLOGY

The Work Study Team employed Work Study Techniques such as S**elf Logging,** for **Organisational Analysis.** For doing **Method Study,** the performers were **interviewed,** in order to supplement the data collected from the files, registers and other records kept at the relevant offices. **Analytical Estimation** and **Direct Observation** were adopted for **Work Measurement.**

Reference to Previous Reports

2.2 The work Study team referred the Administration Reports, Citizen Charter, Report on 'Simplification of Procedures' issued as part of MGP initiative, Report on Dynamic Ground Water Resources of Kerala (2008-2009) issued by the Ground Water Department of Government of Kerala and the Central Ground Water Board of Government of India, Act and Rules issued by the Administrative Department, Circulars and other guidelines issued by the Director of Ground Water Department, for the conduct of the study. Various Notifications, Government Orders issued by Government are also made use of for the study.

2.3 The Work Study was conducted by collecting data from the Directorate of Ground Water Department, Various District Offices randomly selected, Analytical Laboratories, the Workshop and Stores at Kollam and the Central Ground Water Board at Trivandrum.

2.4 The year 2012 was chosen as the base year for the study.

Chapter 3

FACTS AND ANALYSIS

ORGANISATION ANALYSIS

Origin of the Department

The State Ground Water Department started functioning as an independent Department in the year 1978. The Department was established to cater the needs of the irrigation Sector in the State.

Vision and Mission of the Department

3.2 The Vision and Mission of the Ground Water Department, as per the information received from the department, is as follows:

Vision:

Proper management of resources is vital to public governance. The ever increasing demand for water for drinking, agricultural and industrial purposes asserts the necessity of proper management in water resource sector. This includes scientific exploration and conservation of readily available groundwater resources in the State.

Mission:

- Assessment and evaluation of groundwater resources
- Intense monitoring of groundwater regime
- Development of the groundwater resources for domestic, irrigation and industrial needs
- Providing necessary technical guidance for location and design of wells
- Implementing schemes for providing drinking water
- Replenishment of groundwater resources through artificial recharge techniques
- Implementing strategic measures under the Kerala Ground Water (Control& Regulation) Act 2002, to regulate and control groundwater resources to ensure environmental protection and for sustainability of groundwater resources
- Giving technical support to Government organizations viz. Panchayats/

Municipalities/ Corporations etc. for the development of groundwater resources and management

- Conjunctive use of groundwater and surface water
- To monitor monthly groundwater levels and quality during climatic fluctuations.

Functions of the Department

3.3 The main Functions of the Department, as per the information received from the department, are as follows:

1. Groundwater Investigation

3.4 The main objective of groundwater investigation is to identify groundwater potential areas and to locate feasible sites for different types of groundwater extraction structures viz. Open well, bore well, tube well, and filter point well on the basis of detailed hydrological and geophysical investigation. This service is provided to all public, Government institutions, local bodies, industries etc. The exact identification of sustainable water source is very important for effective implementation of water supply scheme. Hydogeological investigation is to be carried out to implement artificial recharge structures for the protection and augmentation for the groundwater sources. The other activities under investigation are systematic survey and preparation of hydrogeological maps groundwater data collection and groundwater estimation.

2. Groundwater Development

3.5 The main activity under this is to extract water through bore wells, tube wells and filter point wells. There are different types of rigs and machineries available in the Department for drilling various types of wells. Drilling staff are engaged for the operation of rigs and drilling activities. 50% subsidy is provided for drilling wells for agriculture purpose. Bore wells, tube wells and filter point wells are constructed on the basis of the requirement of public , Kerala Water Authority, Local bodies, Government institutions etc.

3. Implementation of Mini Water supply Scheme

3.6 Mini water supply schemes are implemented with bore well /tube well as water

source in areas facing acute drinking water scarcity problem. The Department is implementing mini water supply schemes under 'Rajiv Gandhi Drinking Water Mission Scheme' and Drought Relief Works. Ground Water Department is the nodal agency for the implementation of mini water supply scheme for local bodies, District Collector's Drought Relief Work, Special Development Fund for Members of Legislative Assembly(MLASDF), Member of Parliament Local Area Development Scheme (MPLADS), Special Component Plan (SCP), Government institutions etc. The water supply schemes with electrical pump sets will be beneficial to 100 to 250 families. The scheme with hand pump will be beneficial to 10 to 25 families. The schemes will be handed over to the beneficiary committee after the execution for operation and maintenance.

4. Implementation of Artificial Recharge Structures

3.7 In order to augment and protect groundwater resources, artificial recharge structures are constructed. These structures conserve water, reduce erosion, enhance infiltration and thus replenish the groundwater levels. The rainwater from the roofs of Government buildings will be harvested in recharge pits and construction of check dams in streams for groundwater recharge. These structures help to overcome severe drought situation.

5. Hydrology Project (Externally Assisted Project)

3.8 The Hydrology project is a World Bank aided project to introduce the concept of integrated water resource management in the State using modern IT based tools and acquiring the data on groundwater levels, monitoring water quality and weather parameters. These data are used for predicting drought, design water source structures and all water related research purposes. More information on the Hydrology Project can be had from the official Website www.hpkerala.org

3.9 Under the project a groundwater monitoring network has been established. There are 871 observation wells under the network of which 437 are open wells 376 are bore wells and the remaining 58 are tube wells. Monthly water level data is collected

from these wells.

3.10 Under the project, the Analytical Laboratory at Thiruvananthapuram was upgraded to 'Level II+' and two Regional 'Level II' Laboratories were established at Ernakulam and Kozhikode. Pre Monsoon, Monsoon and Post Monsoon data are collected from the observation wells and quality analysis is done at a gap of three months.

3.11 Digital Water Level Recorder (DWLR) readings are taken from 8 Full Climatic Stations(FCS) at an interval of 6 hours. The location of the FCS are as follows:

Sl. No.	Location	District
1	Perumkadavila	Thiruvananthapuram
2	Thenmala	Kollam
3	Thiruvalla	Pathanamthitta
4	Kulamavu	Idukki
5	Civil station	Malappuram
6	Meenangadi	Wynadu
7	Civil Station Vidyanagar	Kasaragod
8	Magattuparamb	Kannur

6. Scheme for Control and Regulation of groundwater

3.12 The drought situation is increasing almost every part of our State and groundwater availability is decreasing. Over exploitation of groundwater results in groundwater depletion in many areas. So groundwater control and regulation is having utmost importance. The objective of the scheme is the enforcement of 'the Kerala Ground Water (Control and Regulation) Act,2002' to avoid groundwater depletion and to ensure equitable distribution of resource to all section of the society.

7. Procurement of accessories and repair of vehicles

3.13 The Department has 32 nos. of vehicle, 15 nos. of lorry and 25 Nos. of rigs. The periodical maintenance and repair has been carried out by this department. The procurement of pipes, accessories for drilling, vehicles, rigs, compressors etc. are also

done regularly. A central workshop and store is functioning for this purpose at Kollam. The repair and procurement will be carried out in the District Offices on the basis of delegation of powers of District Officers.

8. Hand pump repair Work

3.14 Hand pumps are fitted in the bore wells for lifting water. The repair works of these hand pumps will be carried out on the basis of request from public, local bodies etc. The District Collector and local bodies will provide necessary funds to the department for this purpose. Also technical guidance are provided to local bodies for the preparation of estimate, execution and valuation.

9. Water Quality Analysis

3.15 There are three Analytical laboratories functioning under this department to monitor water quality of groundwater. The main concern are deterioration of water quality in both surface water and groundwater. Bacteriological analysis, heavy metal detection, fluoride analysis and other general parameters, in additions to pesticides, are other important tasks assigned to analytical labs. The services of these water testing labs are open to public and results are delivered to them.

Branches of the department

3.16 The Department has five technical branches as follows:

BRANCH I	HYDROGEOLOGY
BRANCH II	ENGINEERING
BRANCH III	GEOPHYSICS
BRANCH IV	HYDROCHEMISTRY
BRANCH V	HYDROLOGY

3.17 The 'Branch V' is, in fact, an Engineering Wing of Civil Engineering branch whereas the 'Branch II' is the Engineering Wing of Mechanical/ Mining/ Agricultural Engineering branch. The Special Rules, relating to all branches and categories of officers [viz. (1) The Kerala Ground Water Department Service Special Rules,1993 and (2) The Kerala Ground Water Department Subordinate Service Special Rules,1993],under the

department, were issued as per the Notifications issued under G.O. (P) No. 32/93/Ir.D Dated 30.07.1993 and G.O. (P) No. 33/93/Ir.D. Dated 30.07.1993, respectively.

Organization Setup

Directorate

3.18 The Department of Ground Water has its Directorate at Thiruvananthapuram, A district Office each at 14 districts, a Workshop and Store at Kollam and three Analytical Laboratories (viz. a Level II+ Laboratory at Thiruvananthapuram and one Level II Laboratories each at Ernakulam and Kozhikode)

3.19 The Director is the head of the Ground Water Department. He is assisted by two Superintending Hydogeologists [a Superintending Hydrogeologist (General) and a Superintending Hydrogeologist (Hydrology Project)] and two Superintending Engineers [a Superintending Engineer (General) and a Superintending Engineer (Hydrology Projects)]. The Director is the Promotion post of the above four posts. The criteria fixed for the promotion as Director was issued by Government as per G.O. (Ms) No. 22/2012/WRD Dated 31.03.2012. There is also a post of Chief Chemist under the Director. In the Administrative Wing, there is an Administrative Officer and a Finance Officer under the Director.

District Offices

3.20 The District Officer is the Head of each District. The District Officer is posted among Senior Hydrologist, Executive Engineer and Senior Geophysicist of BRANCH I- HYDROGEOLOGY, BRANCH II- ENGINEERING and BRANCH -III GEOPHYSICS. Till the 9th pay revision, the promotion was made in the ratio 7:6:1. But in the 9th pay revision the ratio was re fixed as 6:6:2 as per G.O.(Ms) No. 361/2012/(99)/Fin Dated 30.06.2012. But this order is not seen to have been implemented by the Department, so far. **No posting to the District Officer is made from the Hydrochemistry and Hydrology branches.** The Hydrogeology, Engineering and

Geophysics Branches are available in all the 14 districts in addition to ministerial wing. The Hydrology Branch is available in Thrissur district office, in addition to the above four wings.

3.21 A level II+ Analytical Laboratory is functioning in Trivandrum under the Executive Chemist. Two Level II Laboratories are functioning in Ernakulam and Kozhikode District under two Executive Chemist(HP). **No clerical staff is provided for the three Laboratories.**

3.22 The Workshop and Store at Kollam is functioning under an Assistant Executive Engineer. Two clerks are provided in this office. The Organisational Chart (Positional) of the Department and the District Office are appended, respectively, as **Appendix-I and Appendix -II**

3.23 In all district offices except that at Kochikode two clerical staff are provided whereas in the District office at Kozhikode three clerical staff are provided. **No supervisory ministerial staff is provided in all the 14 district offices and the Workshop and Store at Kollam.** The list of sanctioned posts under the Department is appended as **Appendix-III**

3.24 In addition to the above posts, around 160 Casual Laborers and 216 seasonal Laborers are being engaged by the Department.

The Ground Water Authority

3.25 In view of the National Water Policy-2002 issued by the Ministry of Water Resources of Government of India, Government of Kerala enacted an Act (ACT 19 of 2002) called 'the Kerala Ground Water (Control and Regulation) Act, 2002' to provide for the conservation of groundwater and for the regulation and control of its extraction and use in the State of Kerala. This Act came into force with effect from 16.12.2003 (Notification No. 6997/GW1/03/WRD Dated 30.12.2003). Subsequently, in exercise of the powers conferred by Section (1) of Section 27 of the said Act, Government of Kerala made rules called 'the Kerala Ground Water (Control and Regulation) Rules, 2004', which

came into force on 13.03.2004. The main features of the said Act are as follows:

<table>
<tr><th>Sl. No.</th><th>Provision of the Act</th><th>Text of the Act</th><th>Action taken</th></tr>
<tr><td>1</td><td>Section 3</td><td>State Ground Water Authority.-(1) The Government shall by notification in the gazette, constitute an authority called the State Ground Water Authority with effect from such date as may be specified therein.</td><td>Government constituted the Ground Water Authority with effect from 15.01.2004 (Appendix-IV). However, no office have been set up and no posts have been created for the Ground Water Authority.</td></tr>
<tr><td>2</td><td>Section 6 of the Act</td><td>Notifying areas for the control and regulation of ground water development.-(1) the Government may, if satisfied on the recommendation of the authority, that it is necessary in the public interest to regulate the extraction or use of groundwater of any area, declare by notification in the gazette, such area as notified area or the purpose of this Act, with effect from such date as may be specified therein.</td><td>Government of Kerala notified five blocks as 'notified areas' with effect from 19.11.2005 as per Notification issued under G.O.(P) No. 58/2005/WRD Dated 19.11.2005 (Appendix-V) . The notified areas are as under:
<table>
<tr><td>Athiyannoor</td><td>-</td><td>Thiruvananthapuram District</td></tr>
<tr><td>Kodungalloor</td><td>-</td><td>Thrissur district</td></tr>
<tr><td>Chittoor</td><td>-</td><td>Palakkad District</td></tr>
<tr><td>Kozhikode</td><td>-</td><td>Kozhikode District</td></tr>
<tr><td>Kasaragod</td><td>-</td><td>Kasaragod District</td></tr>
</table></td></tr>
<tr><td>3</td><td>Section 7 of the Act</td><td>Grant of permit to extract and use ground water.-(1) Any person desiring to dig a well or to convert the existing well into a pumping well, for his own or social purpose in the notified area, shall submit an application before the authority for the grant of permit for the purpose and</td><td>Permits are being issued by the authority</td></tr>
</table>

		shall not proceed with any activity connected with such digging or conversion unless a permit has been granted by the authority.	
4	Section 8 of the Act	*Registration of the existing wells of the notified area.*-(1) Every owner of the existing wells of the notified area in the State shall, within a period of one hundred and twenty days, from the date of constitution of the authority, register the wells existing and in use and shall apply to the authority in such form and in such manner as may be prescribed for the certificate of registration	The registration was started but could not be continued. The registration process was interrupted owing to so many reasons.
5	Section 9 of the Act	*Registration of user of Ground Water.*_(1) All users of ground water in the State shall within one hundred and twenty days from the date of constitution of the Authority, apply to be registered with the Authority as user of ground water in the State and for grant of certificate of registration.	Do
6	Section 10 of the Act	*Protection of public drinking water sources.*-(1) Not withstanding anything contained in this Act,no person shall without the permission of	Permit is being issued by the authority.

		the Authority dig well for any purpose within thirty meters from any drinking water source from where water is pumped for public purpose:	
7	Section 15(1) (f) of the Act	*Powers of Ground Water Authority.*-(1) The authority shall have power,- (f) to require the user of ground water to install water measuring instrument in any water in any water supply machinery. When it is necessary, for the proper use of water or there is reason to believe that the user is not complying the provisions contained in this Act or to protect public interest	No instance has been brought to the notice of the study team enforcing the above provision.
8	Section 15(4) of the Act	The provisions of the Code of Criminal Procedure, 1973 (Central Act 2 of 1974) shall, as far as possible, apply to any search held or seizure made under this Act.	No instance has been brought to the notice of the study team invoking the above provision.
9	Section 21 of the Act	*Penalties.*-(1) If any owner of a well contravenes any of this provisions of this Act or Rules made thereunder or fails to comply with the rules, in furnishing any information in the manner prescribed, he shall be punishable,-	Instances have been brought to the notice of the study team regarding the imposition of fine to some individual for digging wells in the notified area without permit from the authority.

Central Ground Water Board

3.26 The Central Ground Water Board, under the Ministry of Water Resources, Government of India, is the National Apex Organization in the realm of groundwater in the country. It is entrusted with the responsibilities to carry out hydrogeological surveys, exploration, monitoring of groundwater development and management, and the regulation of the vast groundwater resources for drinking, irrigation, domestic and industrial needs.

3.27 Central Ground Water Board, Kerala Region is one of the 16 Regional Offices of Central Ground Water Board (CGWB) in the country. The Kerala Regional Office has jurisdiction over the State of Kerala and the U.T. of Lakshadweep. However, the Board does not extend any direct service to the individual as in the case of State Ground Water Department.

3.28 The Ground Water department and the Kerala Region Office of Central Ground Water Board work hand in hand some areas of groundwater viz. sharing the data, preparation of Report on 'Dynamic Ground Water Resources of Kerala etc.' More information on the activities of Central Ground Water Board can be had from the web address http://cgwb.gov.in/kr/index.htm

3.29 The Work study Team critically examined all the aspects of the Ground Water Department and the findings and recommendations of the team are as follows:

Sl. No.	Aspect	Findings	Recommendation
1	Objectives of the Department	➢ The Vision, Mission and the Objective of the Department were collected by the work study team using the method of self logging. That means the details (Para 3.2) were given by the Department itself. The study team find that the present objectives are almost clearly defined and are relevant to the present time. But what matters is the priority to be fixed among	1. The Vision, Mission, Objectives and Functions of the Department may be re fixed as follows: **Vision:** Management of Ground Water Resources of the State

			the objectives. The study team feel that a new 'Vision' and 'Mission' are to be fixed and to prioritize the 'Objectives' and 'Functions'.	**Mission:** To develop groundwater policies, programmes and practices to monitor the groundwater resources of the State in order to conserve groundwater for the existence of mankind **Objectives:** ◆ To enact suitable legislation for the conservation of groundwater in terms of quantity and quality ◆ To regulate and control groundwater development ◆ To create awareness among the public on the role played by groundwater for the existence of mankind ◆ To carryout research on the groundwater resources of the State using the data available and the data being collected. ◆ To develop a comprehensive database on the groundwater resources of the State ◆ To formulate action plan for the replenishment of groundwater **Functions:** ● Implementing

			strategic measures under 'the Kerala Ground Water (Control and Regulation) Act Act, 2002' to regulate and control ground water resources for sustainability of groundwater resources and thereby to protect environment. • Monitoring groundwater levels under different climatic conditions • Conducting analysis on water quality on regular intervals • Creating awareness programmes on the conservation of groundwater resources by publishing handbooks, periodicals and conduct mass awareness programmes through Press and Visual Media • Developing a comprehensive database on groundwater resources with the data available and the data being collected • Establishing a research unit within the department on all matters relating to

			groundwater resources. • Conducting training programme to technical staff in order to equip them to design and implement various recharge structures • Formulation of annual plan giving emphasis on recharge structures • Giving technical support to Local Self Government and other institutions for the development of groundwater resources and management, especially for establishing Mini Community Drinking Water Supply Schemes and maintenance of such schemes viz. Hand Pump repair etc.
		➢ The priority fixed for the functions presently being done by the Department does not match with that of the objectives. The department is still giving priority to groundwater survey and drilling for public. The average pendency of groundwater survey among the districts is around two years. In some districts like Wayanad, the pendecy is around four years. This situation does not serve any purpose. Another surprising thing is that the public is given the privilege to select the nature of the well to be dug. That is the public has to specify which type of well (i.e. bore well, tube well, filter point well etc.) they	**2.The Department may withdraw its activities of groundwater survey and drilling for private owners. No drilling rigs, pump testing units may be purchased in future. The existing rigs and pump testing units may be auctioned once its maintenance is found financially not viable.** **3. The service of existing survey and drilling staff**

		desire to dig. The study team feels that the department should decide which type of well is to be dug for the public, based on the site conditions and the requirement of water(i.e. quantity and quality of water). The study team strongly feels that if an open well can meet the requirement of the public, they should go for open well, as drilling a bore / tube well is nothing but spearing the heart of the mother earth. The study team also feels that in future drilling may be encouraged in water logged areas like Kuttand, islands and coastal areas where acute shortage of drinking water is experienced. Similarly the Department can not meet even 5% of the total drilling requirements of the State. Wells are being drilled by private parties indiscriminately without any control at least in the non notified areas. Since the Department has to concentrate more on regulation and control of groundwater and also on replenishing groundwater by way of recharge etc., the functions of the Department have to be modified. However, the role of the department to supervise the activities of groundwater survey and drilling shall be continued owing to the following reasons: i) The method usually employed by the private parties to locate groundwater is 'dowsing'. This method is not scientifically proven. However, there may be persons gifted with this technique. But most of the persons practicing this technique are said to be frauds. ii) Drilling is one area where the users are often cheated by the private	**etc. may be utilised for various Scheme and Deposit Works undertaken by the Department and supervision of private drillers.** **4. The private drilling agencies may be brought under 'Survey cum Drilling Licence'. Only approved drilling agency who has 'Survey cum Drilling Licence' may be permitted to do the survey and drilling works, as in the case of licensed electricians and plumbers under the Kerala State Electricity Board and the Kerala Water Authority. The 'Survey' and 'Drilling' Licence shall not be issued separately, as each party may evade the responsibility in case of non yielding wells. The 'Survey cum Drilling Licence' may be granted to an agency by fixing the criteria as follows:** **i) Availability of qualified Hydrologist, Geophysicist and Driller (their qualification and experience, period of validity of licence etc. may be fixed suitably by Government);**

		drillers. The depth of drilling determines the drilling charge. The users can not, usually, measure the depth of the bore/tube well. This inability is exploited by the private drillers. Another area of cheating is that in case the well does not yield water, the private drillers employ a technique to lift the casing pipe up and draw water from the overburden and mislead the users as water from bore well. This illegal technique eventually spoils the well after some period.	**ii) experience in the field of survey and drilling;** **iii) Reputation of the agency;** **iv) Other registration, if any, owned by the agency;** **v) Profit and loss account** **vi) Availability of sophisticated machinery;** **vii) quality of materials viz. Pipe etc. used (specifications of the materials to be used may be fixed by the department)** **viii) Acceptance in refunding drilling charges in case of non yielding wells** **ix) Willingness to dig open wells** **x) Any other matter relevant to the field.** **5. Licence for 'Pump Testing Unit' may also be granted to individuals or agencies as in the case of 'Survey cum Drilling Licence' . The 'Survey cum Drilling' and 'Pump Testing Licence' may be grated to an agency simultaneously. But for a particular work two different agencies may be engaged for 'Survey and Drilling' and Pump Testing.** **6. For overcoming shortage of qualified candidates, if**

			any, to private drilling agencies, the Department may conduct short term paid courses on survey, well design, drilling, pump testing etc. Successful candidates may be given priority in the recruitment to relevant post under the Department. The Special Rules may be amended to this effect. **7. It is to be made compulsory to engage agencies or individuals who have 'Survey cum Drilling' and 'Pump Testing Licence' for conducting survey, drilling and pump testing activities in connection with the activities of digging/ drilling, developing/ converting a well, irrespective of the nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability or non availability of pumps and its specification and the area (notified and other area). This may be made compulsory for private parties and Government institutions.**
		➢ In some booklets published by some district offices, it is shown that 'Rain Water Collection in Tanks' is an activity of the	**8. Collection of rainwater on tanks shall not be an activity of the department.**

		department. It is a general rule that every department need to strictly focus on activities which are intended to do by them. Since water on aquifer is the area of operation of the department, such activities may not be undertaken by the department	
		➢ There are five branches in the department viz. Hydrogeology, Engineering, Geophysics, Hydrochemistry and Hydrology. The Hydrology Branch is a small Branch which is intended to do the work of Civil Engineering nature viz. Design of small structures for water recharge and mini water supply schemes. These structures are comparatively small with not much complication in its design. Hence any Engineer with basic aptitude can do this work and hence there is no reason to keep the Hydrology Branch as a separate Branch in the department. It is relevant to note that in the Kerala Water Authority, Civil and Mechanical Engineers can compete for the post of Assistant Engineer and a common seniority list is maintained.	**9. It is suggested that the Hydrology Branch may be merged with Engineering Branch in all respect. A common seniority list may be maintained in future. However in view of the priority given to the objective of 'groundwater recharge', the qualification for direct recruitment of proposed Engineering Branch may be modified as 'Degree in Civil Engineering/ Mechanical Engineering/Mining Engineering/Agricultural Engineering with not less than 50% marks'. Similar modification may be made wherever applicable. The special rules may be amended to this effect.**
2	Objectives of State Ground Water Authority	➢ The State Ground Water Authority was constituted by Government of Kerala in exercise of the powers conferred by Section 3 of the Kerala Ground Water (Control and Regulation) Act, 2002. The objective of the authority is to implement the above Act and the rules framed thereunder. However no further step has, so far, been taken by	**1.The study team find no reason to retain the State Ground Water Authority as in the present form. Hence Government may take statutory measures to dissolve the Authority and entrust the department and the 'District Level**

		Government to equip the authority to perform its functions. No office/ staff have been provided for the Authority.	**Evaluation Committee', constituted as per G.O.(Rt) No. 1211/2009/WRD dated 31.10.2009 (Appendix-VI), to implement the said Act and Rules. The Kerala Ground Water (Control and Regulation) Act, 2002 and the rules framed thereunder may be amended accordingly.**
		➢ Statistics play a lead role in any research and development activity. No authentic statistics available in the department regarding the number of groundwater structures existing in the State and the total draft of groundwater in the State per year. ➢ The definitions given to 'well', 'Pumping well', 'user of groundwater' and its usage in the aforesaid Act and Rule make lot of confusion. ➢ There is no Circular issued by the Department clarifying the 'users' who are to be registered as 'user of groundwater' in terms of nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability and non availability of pump and its specification and the area (notified and other area). No circular is also available for clarifying whether permission is required for digging a well in the notified area in terms of the above parameters. ➢ The study team also find that no registration is at present required	**2. The study team recommend that the well census, which was dropped in the half way mark, may be continued more effectively.** **3. All groundwater structures throughout the State, including abandoned wells, shall be brought under the census and owners may be registered under the department. Registration may be made compulsory irrespective of the nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability or non availability of pumps and its specification and the area (notified and other area). The groundwater structures under the control of Government/**

			in the case of open wells fitted with pump up to and including 1.5 H.P. and other types of well fitted with pumps up to and including 3 H.P. This causes a situation that majority of the users evade from the necessity of being registered thereby defeating its very purpose.	**quasi government institutions, organistaions and other bodies under the State and Central Government may also be brought under the well census.** **4. The form specified under (Appendix-VII) may be used for well census.** **5. A web based application may be launched for uploading the details directly to the web, for conducting well census. This may be done 'Ward' wise using the services of trained 'Kudumbashree Units' and NGOs. The Longitude and Latitude (Now available even in smart phones) shall be recorded for identifying the position of the groundwater structure.** **6. Prior sanction of the Department may be made compulsory, throughout the State, for digging/ developing/converting a well, irrespective of the nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability or**

			non availability of pumps and its specification and the area (notified and other area). This may be made compulsory for private parties and Government institutions. **7. The form specified under (Appendix-VIII) may be used for filing application for digging/ developing/ converting a well.** **8. No permit may be granted for digging/ developing/ converting a well for industrial purposes (including drinking water bottling plants etc.) in the notified area.** **9. Amendments may be made in the aforesaid Act and Rules in accordance with the recommendations on 'Well Census' and permit for digging/ developing/ converting a well)** **10. Circulars clarifying the 'owners' who are to be registered as part of the well census and to whom permit is mandatory for digging/ developing/ converting a well and allied matters may be issued by the department and be**

			given wide publicity in accordance with the recommendations of the study team.
		➢ Section 21 of the Act imposes penalties to owners for contraventions on the provisions of the said Act and Rules. The maximum penalty that can be imposed for any contraventions on the fist time is Two Thousand rupees and for the second time is Ten Thousand Rupees or imprisonment up to six months. That means a person digging well in the notified area without getting a permit need to pay rupees Two Thousand only for the first time. The study team feel that this is a real loophole which can be misused easily.	**11. The study team feel that the penalties that can be imposed under section 21 of the said Act is inadequate to meet the purpose. Hence it is suggested that a fine of Rs.20,000/- (Rupees Twenty Thousand only) may be imposed for the first time and fine of Rs50,000/- (Rupees Fifty Thousand only) and imprisonment of one year together may be imposed for the second time. In the case of unauthorized digging, the well may be sealed permanently by realizing the expenses from the contravener.**
		➢ The source of water abstracted from a well, dug in a small plot, need not necessarily infiltrated in the same plot. The water infiltrated from a large area accumulate in the well and is abstracted by the owner. This justifies levying cess for the water abstracted from groundwater structures, at least for industrial purposes by private users. This will helps to create a feeling on the owners that water is precious.	**12. The Study Team recommend that an one time cess may be levied from the private owners while granting permit to dig/ develop or convert a well for industrial purposes. A certain percentage of the total project cost may be levied, which may be fixed, suitably, by Government.**
3	Objectives of the Work	➢ The Work shop and Store at Kollam under the Department of Ground Water is alternatively	**1. In view of the proposed withdrawal of the**

	shop and Store at Kollam.	known as the 'Central Work Shop and Store'. The main disadvantage is that it is not centrally located. The rigs , vehicles etc. belonging to the northern district offices have to be brought to Kollam, for periodic service, repair etc. This causes lot of hardships to district offices and hence they do such works in private workshops. The workshop is equipped to do only minor works such as oil changing, patch work, body building, painting etc. Major works such as Engine overhauling, gearbox repair etc. are done by private workshops (based on quotation/ tender) even if the vehicle is brought to the central work shop. In the case of vehicles other than rigs, the workshop is not authorised to work independently but has to follow the procedures fixed by the Public Works Department, as in the case of any other department, despite the fact that the Workshop and Store is headed by an Assistant Executive Engineer of Mechanical Engineering branch. Similarly the materials delivered at the store have to be transported to district offices, which also make lot of hardships. ➢ When the Work study team visited the Workshop and store, they could hardly hear the noise of hammering, chiseling, drilling, welding etc. from machine shop. There was absolute silence and tranquility in the work shop premises.	**department from the activities of groundwater survey and drilling, it is suggested that the department may windup the Workshop and Store at Kollam.** **2. The workshop and store may be converted into a good Training Center under the Assistant Executive Engineer, where the aforesaid short term courses and training to staff may be held.** **3. The duties and responsibilities of the staff intended for the workshop and store (viz. Foreman, Store in charge, SLRs, CLRs etc.) may be re fixed.** **4. No recruitment in the above categories may be made in future.** **5. No new vehicle may be purchased in the department. The vehicles may be hired on contract basis. For this, the model adopted by the Kerala State Electricity Board may be followed. The post of 'Driver' need not be filled up in future.**
4	Objectives of	➢ The situation mentioned in Sl.	**1. Water samples may be**

	Analytical Laboratories	No. 4 under 'Objectives of the Department' in para 3.29 is applicable to the Analytical Laboratories also. Water samples are seen to have been tested without ascertaining its source. ➢ In the Analytical laboratory at Ernakulam, presence of bacteria is not tested.	**accepted for quality analysis only after ascertaining its source. That is water from groundwater source alone may be accepted.** **2. Quality analysis of water may be done separately for all purposes viz. Drinking, Domestic, Agriculture, Construction and Industrial purposes.** **3. The three laboratories may be upgraded to the level of getting accreditation of the 'National Accreditation Board for Testing and Calibration Laboratories (NABL)'.**
5	Clear demarcation of duties and responsibilities	➢ The Work Study team found that certain orders were issued by the Director specifying the duties and responsibilities of certain staff.	**In view of the proposed changes in the objectives and activities of the department, the Director may issue a comprehensive Order, specifying the duties and responsibilities of each category of officers.**
6	Separation of Line and staff functions	➢ This is one area where the study team has major concern on the department. In every district office (except Kozhikode) and the Workshop and Store at Kollam, two clerks are provided without supervisory ministerial staff. The supervisory job is done by the technical staff. Similarly, in the Analytical Laboratories no ministerial staff is provided. This	**1. In view of the fact that there is no clerical staff available for Analytical Laboratories and in view of the Work load (Para 3.32) it is recommended that the ministerial work of the Analytical Laboratory at**

		is not a healthy practice. ➢ In a healthy organisation, there should be a clear division of line and staff functions. Line functions are concerned with primary objectives for which an organisation exists. Staff means a stick on which one can lean support. Overlapping of duties of line and staff results in misunderstanding of specific authorities and responsibilities.	**Kozhikode may also be entrusted to the clerk available in the district office and their work may be distributed evenly among the three clerks.** **2. In view of the Work load (Para 3.32) two posts of Clerks may be created one each at the District Office in Thiruvananthapuram and Ernakulam also for attending the work at the respective Analytical Laboratory.**
		➢ The satisfaction and motivation of the staff are other major concerns. The clerks are recruited from the common rank list published by the Public Service Commission. Since the promotion prospects are very low in the department as compared to other departments, they are ill motivated and some clerks leave the department by getting inter departmental transfer.	**3. Suggest to create three posts of Senior Superintendents, one each in Thiruvananthapuram, Ernakulam and Kozhikode District Offices, in order to motivate the clerical staff. No further creation is suggested in view of the present financial constraints of the State Government.**
		➢ Same is the case of the Geophysics branch of the department. The Geophysics branch is as important as the Hydrogeology and Engineering Branch of the department. The geophysical method of Electrical Resistivity Survey is the scientific method used to identify groundwater. The geophysical technique called 'well logging' is used to demarcate the subsurface fresh and saline water formation.	**4. The 9th Pay Revision Commission, in its Report under Para 7.28.3.(iii), recommended that one post of the Geophysicist may be upgraded in the grade of Superintending Geophysicist. The spirit of this recommendation may be implemented and the**

		The future role of the geophysics branch are: Geophysical field investigation for geophysical coverage of hard rock/coastal tract, mapping of inlaid groundwater salinity, delineation of deeper alternative aquifers in the sedimentaries, survey for artificial recharge schemes and pollution studies, geophysical mapping for subsurface structures relevant to interlinking of the rivers etc. ➢ There are 15 posts of Junior Geophysicist as against 18 and 20 posts of Junior Hydrogeologist and Assistant Engineer, respectively. But the promotion post of Geophysicist is reduced to 3 as against 13 and 15 Hydrogeologist and Assistant Executive Engineer. There is no post of Superintending Geophysicist available in the Department as against 2 post each of Superintending Hydrogeologist and Superintending Engineer. As a result the promotion as Director is denied to the Geophysics Branch.	**proposed post of Superintending Geophysicist and the existing post of Chief Chemist (HP) may also be considered for promotion to the post of Director. In Para 7.28.3.(iv) of the above Report it was recommended to re-structure the Geophysical Branch of the department. The spirit of this recommendation may be implemented.**
		➢ The District Officer is the Head of each District. The District Officer is posted among the Senior Hydrogeologist, Executive Engineer and Senior Geophysicist of BRANCH I-HYDROGEOLOGY, BRANCH II- ENGINEERING and BRANCH -III GEOPHYSICS. Till the 9th pay revision, the promotion was made in the ratio 7:6:1. But in the 9th pay revision the ratio was re fixed as 6:6:2 as per G.O.(Ms) No. 361/2012/ (99)/Fin Dated 30.06.2012. But this order is not seen to have been implemented by the Department,	**5. The recommendation of the 9th Pay Revision Commission, under para 7.28.3(v) of the above Report, states as follows: 'The existing ratio for promotion to the post of District Officer among Hydrogeologist, Executive Engineer and Geophysicist is 7:6:1. This has resulted in superseding the Seniority of Geophysicist by juniors**

		so far.	**in the branches of Hydrogeology and Engineering. As a relief measure, the cadre strength of the category of Geophysicist may be enhanced by adding one more post of district level officer for which the ratio may be revised as 6:6:2 among Hydrogeologists, Executive Engineers and Geophysicist.". Even if G.O.(Ms) No. 361/2012/ (99)/Fin Dated 30.06.2012 is implemented, that will give only marginal relief to the Geophysics Branch. The Study team, therefore, recommend that instead of ratio promotion, the seniority among Senior Hydrogeologists, Executive Engineers and Senior Geophysicist may be taken into consideration for promotion to the post of District Officer. This pattern is followed in Collegiate Education Department for promotion to the post of Principals in Government Colleges. No ratio promotion is available among different departments(Viz. Malayalam, English, Mathematics, Physics, Commerce, History etc.).**

			This pattern is, more or less, followed in the Central Ground Water Board also. **6. One Sri. Balasubrahmanian Nampoothiri submitted a representation before Government for amendment to the Special Rules for enabling the Foreman to get promotion as Assistant Engineer. Copy of the representation is appended as Appendix-XI. Government may examine this request, in detail, and take a decision after giving the petitioner a reasonable opportunity of being heard.**
7	Proper delegation of authority	➢ The delegation of powers of officers of the department has recently been issued by Government as per G.O.(Ms) No. 112/2013/WRD Dated 11.11.2013 (Appendix-IX). As per this Government Order, the delegation of powers of District Officer for 'Original works' has been fixed as Rs.4,00,000/- (Rupees Four Lakh only).	**1. As per G.O.(Rt) No. 534/2013/WRD Dated 15.05.2013, the delegation of powers of District officers had been fixed as Rs.20,00,000/- (Rupees Twenty Lakh only), purely as a temporary measure, for each drought related work sanctioned on or before 15.05.2013 and completed before 31.05.2013. If it is given for drought relief work the same can be given throughout the year. The study teams find no reason to reduce the limit from Rs. 20,00,000/- (Rupees Twenty**

			Lakh only) to Rs.4,00,000/- (Rupees Four Lakh only). Hence it is recommended that the delegation of powers of District Officers for 'Original works' may be restored to Rs. 20,00,000/- (Rupees Twenty Lakh only). Other items of work and delegation of powers of other officers may be enhanced proportionally. **2.The rates of Mini Water Supply Schemes (MWSS) and allied works of the department was revised w.e.f. 01.10.2012. The District Officer, Kannur, vide his letter No. GWKNR/1105/2011 Dated 12.12.2012, suggested certain modifications in the revised schedule of rates. He also submitted a note for the meeting held on 29.01.2013. Copy of the above letter and the note are appended as Appendix-X. The department may constitute a committee to examine the suggestions for its implementation.**

METHOD STUDY

3.30 As already stated in recommendations 2-9 under Sl.No. 2 of Para 3.29, the work study team feel that all wells are to be registered and prior sanction is required for digging/ developing/ modifying a well. The major situations where the public have to

approach the department are as follows:

1	Registration of existing wells including abandoned wells;
2	Getting permit for conducting survey/digging for a new well, developing/modification of existing wells (including such activities for a well within a distance of 30 meters from a drinking water source being used for public water supply);
3	Groundwater quality analysis.

3.31 The existing procedure and revised procedure recommended by the study team are as follows:

Sl. No.	Activity	Existing procedure	Revised procedure recommended
1	Registration of existing wells including abandoned wells	The existing procedures for 'registration of existing wells in the notified area' and 'registration as user of ground water' have been narrated in Rule 16 and 17 of the Kerala Ground Water (Control and Regulation) Rules, 2004.	**The study team feel that these two activities can be combined together. The procedure is as follows:** **A web based application may be launched for uploading the details directly to the web, for conducting well census. This may be done 'Ward' wise using the services of trained 'Kudumbashree Units' and NGOs. The Longitude and Latitude (Now available even in smart phones) shall be recorded for identifying the position of the groundwater structure. The form under AnnexureVII may be used for this purpose. An acknowledgement containing a unique Registration No. may be given to the owner at the time of collection of data. The owners may be able to download the 'Certificate of Registration', containing digital signature, directly**

			from the web using their registration No.
2	Getting permit for conducting survey/digging for a new well, developing/ modification of existing wells (including such activities for a well within a distance of 30 meters from a drinking water source being used for public water supply)	1.The applicant files application (different forms are used by different District offices) for survey in the district office. 2.Prescribed fees is remitted by the applicant 3. The field staff of Hydrogeology and Geophysics branches inspect the site. 4. They submit feasibility report to the District Officer. 5. The approved report is conveyed to the applicant 6. If required, the applicant files separate application for drilling. 7. Estimate is prepared and conveyed to the applicant. 8. The estimated amount is collected and TR5 Receipt is given to the applicant 9. The amount is deposited in the Special Treasury Savings Bank(STSB) Account 10. Drilling is executed as per seniority. 10. Bill is prepared 11. The applicant pay additional amount if necessary or the excess amount is refunded to the applicant. 12. A completion report	**All activities viz. Survey, digging, drilling, pump testing may be permitted to carry out by the agencies and individuals having valid licence from the Department as mentioned in recommendation 7 under Sl.No. 1 of para 3.29. The Procedure to be followed is as follows:** **1. Application for survey and drilling is to be submitted to the district Office through the agency who has valid 'Survey cum drilling' licence, as in the case of procedures adopted for getting electric connection and water connection from Kerala State Electricity Board and Kerala Water Authority, respectively.** **2. The field staff of Hydrogeology and Geophysics branches inspect the site and submit report** **3. If it is feasible, processing charge (non refundable), as fixed by the Department, is to be collected and which may be treated as permission to do the activity** **4. The agency completes the activity and reports to the District officer with relevant details.** **5. A field staff inspects the site and reports the satisfactory completion of work and correctness of details furnished by the agency.** **6. Registration certificate of the well**

		is given to the applicant 13. The revenue is withdrawn from the STSB account and remitted to the treasury in the Receipt head of account.	**is issued to the owner.** **Note:** **i)If the activity is for industrial purpose, pump testing may be made compulsory. For this, licensed agency or individual may be engaged.** **ii) Water Meter may be made compulsory for industrial purposes as per Section 15(1) (f) of the aforesaid Act.** **iii) Issue of Registration Certificate in the case of activities for industrial purposes is subject to the scrutiny of District Level Evaluation Committee constituted for this purpose.** **iv) For deposit and other departmental works, existing procedure may be followed. However, work may be awarded to Licensed agencies inviting competitive quotation/ tender, as the case may be.** **v) For the case of all deposit and departmental works, pump testing and water meter may be made compulsory, as the groundwater draft will be comparatively high. The position may be reviewed periodically.** **vi) Report on quality analysis of groundwater may be obtained from Analytical Laboratory, whenever necessary.**
3	Groundwater quality analysis	1. The user bring water sample to the Analytical laboratory with application in the	**The existing procedures may be followed subject to the following conditions:** **i) declaration of the user may be**

		specified format 2. Specified fee is remitted at the Laboratories 3. Quality analysis is done as per turn 4. Report is conveyed to the user	**obtained in application form that the source of water is groundwater** **ii) For licensing purposes, the water samples may be collected from source by the Department staff. The SLRs and CLRs may be used for this purpose.** **iii) A footnote may be given in the certificate that 'This certificate should not be used for any licensing purpose', unless the water sample is collected from the source directly by the department staff.**

WORK MEASUREMENT

3.32 The annual work load of Clerks, measured based on the revised procedure recommended by the Work Study team, is as Follows:

Sl.No.	Office	Work Load(in Man-Hour)				
		File Works + Routine Works	P&F Allowance	Non File Works	Total Work Load in Man-Hours	Remarks
1	Directorate	17854	2678	3537	24069	Provision for 14 clerks
2	District office at Alappuzha	2575	386	502	3463	Provision for 2 clerks
3	District office+ Analytical Laboratory at Ernakulam	4050	608	790	5448	Provision for 3 clerks
4	District office at Thrissur	2613	392	452	3457	Provision for 2 clerks
5	District office at Palakkad	2597	389	470	3456	Provision for 2 clerks
6	Distrct Office at Malappuram	2675	401	537	3613	Provision for 2 clerks

7	District office+ Analytical Laboratory at kozhikode	4125	619	779	5523	Provision for 3 clerks
8	District office at Kasaragod	2674	401	506	3581	Provision for 2 clerks

Other Recommendations/ suggestions:

Emphasis to Ground Water Recharge

3.33 The Department may give emphasis on groundwater recharge. For this, comprehensive proposals may be made in the Annual Plan.

Training to Technical Staff

3.34 In order to equip the officers of Hydrogeology, Geophysics and the proposed Engineering Branches conversant on the design and installation of various artificial recharging structures and techniques, comprehensive training may be provided to them.

Utilisation of Data and setting up of research Unit

3.35 Large quantity of data is collected by the Department as part of its regular functions and the services being rendered to the public and others. A research unit may be setup within the department to compile data and conduct research in the field of groundwater resources.

Public Relations Unit

3.36 The Department may establish a separate 'Public Relations Unit' for creating awareness among public by publishing handbooks, periodicals etc. and conducting mass awareness programmes through Press and Visual media, on the conservation of groundwater resources in terms of its quantity and quality.

Enforcement of Kerala Municipality Building Rules

3.37 Rule 109 A(4) under Chapter XVI-A of 'the Kerala Municipality Building Rules' states that the Municipality shall enforce workable artificial ground water recharging arrangements as an integral part of all new building constructions through collection of rooftop rainwater. This Rule may be invariably enforced. A regulation may also be included in the Rules, specifying the maximum area to be paved outside the building with respect to the total plinth area of the building. The Local self Government Department may be addressed for this purpose.

Consultation for Pollution control Clearance

3.38 Before issuing clearance to any industry, the Pollution Control Board may consult the District Officer of the Ground Water Department to confirm that the proposed industry does not pollute groundwater. The Department of Environment may be addressed for this purpose

Consultation for quarrying permit

3.39 Before granting permit/lease/licence etc. for all kind of quarrying and registration for crusher units, the Mining and Geology Department may consult the District Officer of the Ground Water Department to confirm that the Groundwater resources are not affected adversely. The Industries Department may be addressed for this purpose.

Consultation for excavation of earth and sand mining

3.40 Before granting permit for excavation of earth and sand mining the Revenue Authority may consult the District Officer of the Ground Water Department to confirm that the Ground water resources are not affected adversely. The Revenue Department may be addressed for this purpose.

National water Policy 2012

3.41 The Ministry of water Resources, Government of India has issued 'National Water Policy 2012' which is available in the web address 'http://wrmin.nic.in/writereaddata/linkimages/NWP2012Eng6495132651.pdf' . The Department may consider this policy for any modification in its functions.

Guidelines issued by Central Ground water Authority

3.42 The Central Ground Water Authority issued 'Guidance/ Criteria for Evaluation of proposals/ requests for Groundwater abstraction, which came into force from 15.11.2012 (Available in the web address 'http://cgwb.gov.in/CGWA/documents/Approved%20Guidelines%20for%20evaluation%20of%20proposals.pdf'). The department may consider these guidelines for any modification in its functions.

Setting up of Mobile Laboratories

3.43 The water samples are collected and brought to the Analytical Laboratories for testing. As a result, the field parameters viz. pH, electrical Conductivity, total dissolved solids, alkalinity etc. could not be analyzed. The department may therefore study the feasibility of starting three mobile laboratories attached to the three Analytical Laboratories.

Establishing website

3.44 The Department may establish a comprehensive website. The details relevant to the public viz. Procedures for various services, fees, application forms etc. may be provided in the website as suo-moto disclosure of information. Online facility may be provided to public for getting services.

Implementation of e-office:

3.45 e-office may be implemented in the department. e-payment facility may

be provided for public.

Citizen Charter

3.46 The Department may take action to publish a Revised Citizen Charter in view of the change of Functions as suggested by the study team.

Subsidy to Marginal farmers

3.47 The Department is providing 50% of the drilling charges as subsidy to marginal farmers. In the event of suggested withdrawal of the Department from drilling activity, separate fund may be provided in the budget for granting subsidy to eligible marginal farmers. Instead of providing 50% of the drilling charge, a fixed amount may be sanctioned as subsidy to each marginal farmer, which may be fixed suitably by the Department.

Casual Labourers

3.48 Indiscriminate appointment of Casual Labourers and their absorption as Seasonal Labourers is a major concern in the Department. They are being appointed without any clear cut guidelines. In the event of suggested withdrawal of the Department from survey and drilling activities, the Department may cease to appoint Casual Labourers immediately.

Safety Guidelines for wells

3.49 It has been a regular news now-a days in the News papers that persons scared of police drowned after falling in wells. This necessitates issuing safety guideline to public while constructing water abstraction structures. The department may, therefore, issue a guidelines to provide safety measures to all existing

abstraction structures including abandoned wells and newly constructed structures. Wide publicity of the guidelines may be given in all media. While framing guidelines, the Department may keep in mind the modified guidelines issued by the Hon'ble Supreme Court Of India regarding the 'Measures for preventing of fatal accidents of small children due to their falling into abandoned bore wells and tube wells (available in the web address http://pib.nic.in/newsite/erelease.aspx?relid=99289)

Chapter 4

PERSONNEL AND FINANCIAL IMPLICATIONS

The creation of additional posts, as suggested by the work Study team as per the recommendations No.2&3 of item 6 under para 3.29 are as follows:

Sl. No.	Designation	No. of posts
1	Senior Superintendent	3
2	Clerk	2

Financial Implications

4.2 The financial implications anticipated, for the implementation of recommendations regarding the creation of additional posts are illustrated in the table appended as **Appendix-XII**. It is seen that the total anticipated expenditure is Rs. 14,59,464/- (Rupees Fourteen Lakh Fifty Nine Thousand Four Hundred and Sixty Four only) per year.

Chapter-5

PLAN FOR IMPLEMENTATION

The plan for implementation of recommendations made by the Study Team is classified under recommendation for (i) Short Term and (ii) Long Term. The recommendations, already elaborated in Chapter 3, are summarised in Chapter 6. The recommendations under 'Short Term' may be implemented immediately. For the implementation of recommendations under 'Long Term', the Director of Ground Water Department may take action to include the proposal in the next coming budget, wherever necessary, and take earnest effort to complete the work in the estimated time.

Chapter-6

Summary of Recommendations/ Conclusions

The recommendations/conclusions of the Work Study Team, elaborated in Chapter-3, are classified under 'Short Term' and 'Long Term' and are summarised as follows. If implementation of any recommendation/suggestion requires amendment(s) in the statutes, the Administrative Department may take action to amend the relevant Act and Rule, even if the recommendation/suggestion is silent about such amendments.

SHORT TERM	
6.1	**The Vision, Mission, Objectives and Functions of the Department may be re fixed as follows:** **Vision:** **Management of Ground Water Resources of the State** **Mission:** **To develop groundwater policies, programmes and practices to monitor the groundwater resources of the State in order to conserve groundwater for the existence of mankind** **Objectives:** ◆ **To enact suitable legislation for the conservation of groundwater in terms of quantity and quality** ◆ **To regulate and control groundwater development** ◆ **To create awareness among the public on the role played by groundwater for the existence of mankind** ◆ **To carry out research on the groundwater resources of the State using the data available and the data being collected.** ◆ **To develop a comprehensive database on the groundwater resources of the State** ◆ **To formulate action plan for the replenishment of groundwater**

	Functions: • **Implementing strategic measures under 'the Kerala Ground Water (Control and Regulation) Act Act, 2002' to regulate and control groundwater resources for sustainability of groundwater resources and thereby protect environment.** • **Monitoring groundwater levels under different climatic conditions** • **Conducting analysis on water quality on regular intervals** • **Creating awareness programmes on the conservation of groundwater resources by publishing handbooks, periodicals and conduct mass awareness programmes through Press and Visual Media** • **Developing a comprehensive database on groundwater resources with the data available and the data being collected** • **Establishing a research unit within the department on all matters relating to groundwater resources.** • **Conducting training programme to technical staff in order to equip them to design and implement various recharge structures** • **Formulation of annual plan giving emphasis on recharge structures** • **Giving technical support to Local Self Government and other institutions for the development of groundwater resources and management, especially for establishing Mini Community Drinking Water Supply Schemes and maintenance of such schemes viz. Hand Pump repair etc.** ***(Rec. 1 under Sl. No. 1 of Para 3.29)***
6.2	**Collection of rainwater in tanks shall not be an activity of the department.** ***(Rec. 8 under Sl. No. 1 of Para 3.29)***
6.3	**The Hydrology Branch may be merged with Engineering Branch in all respect. A common seniority list may be maintained in future. However, in view of the priority being given to the objective of 'groundwater recharge', the qualification for direct recruitment of Engineers of the proposed Engineering Branch may be**

	modified as 'Degree in Civil Engineering/ Mechanical Engineering/Mining Engineering/Agricultural Engineering with not less than 50% marks'. Similar modification may be made wherever applicable. The Special Rules may be amended to this effect. ***(Rec. 9 under Sl. No. 1 of Para 3.29)***
6.4	**Government may take statutory measures to dissolve the Kerala Ground Water Authority and entrust the Ground Water Department and the 'District Level Evaluation Committee', constituted as per G.O.(Rt) No. 1211/2009/WRD dated 31.10.2009 (Appendix-VI), to implement the Kerala Ground Water (Control and Regulation) Act, 2002. The Kerala Ground Water (Control and Regulation) Act, 2002 and the Rules framed thereunder may be amended accordingly** ***(Rec. 1 under Sl. No. 2 of Para 3.29)***
6.5	**In view of the suggested withdrawal of the department from the activities of groundwater survey and drilling, the department may wind up the Workshop and Store at Kollam.** ***(Rec. 1 under Sl. No. 3 of Para 3.29)***
6.6	**The Workshop and Store may be converted into a good Training Centre under the Assistant Executive Engineer, where short term courses and training to staff may be held.** ***(Rec. 2 under Sl. No. 3 of Para 3.29)***
6.7	**No permit may be granted for digging/ developing/ converting a well for industrial purposes (including drinking water bottling plants etc.) in the notified area.** ***(Rec. 8 under Sl. No. 2 of Para 3.29)***

6.8	**Circulars clarifying the 'owners' who are to be registered as part of the well census and to whom permit is mandatory for digging/ developing/ converting a well and allied matters may be issued by the department and be given wide publicity** ***(Rec. 10 under Sl. No. 2 of Para 3.29)***
6.9	**The penalties that can be imposed under Section 21 of the said Act is inadequate to meet the purpose. Hence fine of Rs.20,000/- (Rupees Twenty Thousand only) may be imposed for the first time and fine of Rs.50,000/- (Rupees Fifty Thousand only) and imprisonment of one year together may be imposed for the second time. In the case of unauthorized digging, the well may be sealed permanently by realizing the expenses from the contravener.** ***(Rec. 11 under Sl. No. 2 of Para 3.29)***
6.10	**One time cess may be levied from the private owners while granting permit to dig/ develop or convert a well for industrial purposes. A percentage of the total project cost may be levied, which may be fixed, suitably, by Government.** ***(Rec. 12 under Sl. No. 2 of Para 3.29)***
6.11	**No new vehicle may be purchased in the department. The vehicles may be hired on contract basis. For this, the model adopted by the Kerala State Electricity Board may be followed. The post of 'Driver' need not be filled up in future.** ***(Rec. 5 under Sl. No. 3 of Para 3.29)***
6.12	**Water samples may be accepted for quality analysis only after ascertaining its source. That is water from groundwater source alone may be accepted.** ***(Rec. 1 under Sl. No. 4 of Para 3.29)***

6.13	**Quality analysis of water may be done separately for all purposes viz. Drinking, Domestic, Agriculture, Construction and Industrial purposes.** ***(Rec. 2 under Sl. No. 4 of Para 3.29)***
6.14	**In view of the fact that there is no clerical staff available for Analytical Laboratories and in view of the Work load (Para 3.32) the ministerial work of the Analytical Laboratory at Kozhikode may also be entrusted to the clerk available in the district office and their work may be distributed evenly among the three clerks.** ***(Rec. 1 under Sl. No. 6 of Para 3.29)***
6.15	**In view of the Work load (Para 3.32), two posts of Clerks may be created one each at the District Office in Thiruvananthapuram and Ernakulam, for also attending the work at the respective Analytical Laboratory.** ***(Rec. 2 under Sl. No. 6 of Para 3.29)***
6.16	**Create three posts of Senior Superintendents, one each in Thiruvananthapuram, Ernakulam and Kozhikode District Office, in order to motivate the clerical staff. No further creation is suggested in view of the present financial constraints of the State Government.** ***(Rec. 3 under Sl. No. 6 of Para 3.29)***
6.17	**The 9th Pay Revision Commission, in its Report under Para 7.28.3. (iii), recommended that one post of the Geophysicist may be upgraded in the grade of Superintending Geophysicist. Spirit of this recommendation may be implemented and the proposed post of Superintending Geophysicist and the existing post of Chief Chemist (HP) may also be considered for promotion to the post of Director. In**

	Para 7.28.3.(iv) of the above Report it was recommended to re-structure the Geophysical wing of the department. The spirit of this recommendation may also be implemented. ***(Rec. 4 under Sl. No. 6 of Para 3.29)***
6.18	**The recommendation of the 9th Pay Revision Commission, under para 7.28.3(v) of the above Report, states as follows:** **'The existing ratio for promotion to the post of District Officer among Hydrogeologist, Executive Engineer and Geophysicist is 7:6:1. This has resulted in superseding the Seniority of Geophysicist by juniors in the branches of Hydrogeology and Engineering. As a relief measure, the cadre strength of the category of Geophysicist may be enhanced by adding one more post of district level officer for which the ratio may be revised as 6:6:2 among Hydrogeologists, Executive Engineers and Geophysicist.". Even if G.O.(Ms) No. 361/2012/ (99)/Fin Dated 30.06.2012 is implemented, that will give only marginal relief to the Geophysics Branch. Hence, instead of ratio promotion, the seniority among Senior Hydrogeologists, Executive Engineers and Senior Geophysicist may be taken into consideration for promotion to the post of District Officer. This pattern is followed in Collegiate Education Department for promotion to the post of Principals in Government Colleges. No ratio promotion is available among different departments(Viz. Malayalam, English, Mathematics, Physics, Commerce, History etc.). This pattern is, more or less, followed in the Central Ground Water Board also.** ***(Rec. 5 under Sl. No. 6 of Para 3.29)***
6.19	**One Sri. Balasubrahmanian Nampoothiri submitted a representation before Government for amendment to the Special**

	Rules for enabling the Foreman to get promotion as Assistant Engineer. Copy of the representation is appended as Appendix<u>VIII</u>. Government may examine this request, in detail, and take a decision after giving the petitioner a reasonable opportunity of being heard. ***(Rec. 6 under Sl. No. 6 of Para 3.29)***
6.20	**The delegation of powers of District Officers for 'Original works' may be restored to Rs.20,00,000/- (Rupees Twenty Lakh only). Other items of work and delegation of powers of other officers may be enhanced proportionally.** ***(Rec. 1 under Sl. No. 7 of Para 3.29)***
6.21	**The rates of Mini Water Supply Schemes (MWSS) and allied works of the department were revised w.e.f. 01.10.2012. The District Officer, Kannur, vide his letter No. GWKNR/1105/2011 Dated 12.12.2012, suggested certain modifications in the revised schedule of rates. He also submitted a note for the meeting held on 29.01.2013. Copy of the above letter and the note are appended as <u>Appendix-X</u>. The department may constitute a committee to examine the suggestions for its implementation.** ***(Rec. 2 under Sl. No. 7 of Para 3.29)***
6.22	**The existing procedures for groundwater quality analysis may be followed subject to the following conditions:** **i) declaration of the user may be obtained in application form that the source of water is groundwater** **ii) If the quality analysis is for licensing purposes, the water samples may be collected from source by the Department staff. The existing SLRs and CLRs may be used for this purpose.** **iii) A footnote may be given in the certificate that 'This certificate should not be used for any licensing purpose', unless the water sample is collected from the source directly by the department staff.** ***(Rec. under Sl. No. 3 of Para 3.31)***

6.23	**The Department may give emphasis on groundwater recharge. For this, comprehensive proposals may be made in the Annual Plan.** ***(Para 3.33)***
6.24	**In order to equip the officers of Hydrogeology, Geophysics and the proposed Engineering Branches conversant on the design and installation of various artificial recharging structures and techniques, comprehensive training may be provided to them.** ***(Para 3.34)***
6.25	**The Department may establish a separate 'Public Relations Unit' for creating awareness among public by publishing handbooks, periodicals etc. and conducting mass awareness programmes through Press and Visual media, on the conservation of groundwater resources in terms of its quantity and quality.** ***(Para 3.36)***
6.26	**Rule 109 A(4) under Chapter XVI-A of 'the Kerala Municipality Building Rules' states that the Municipality shall enforce workable artificial ground water recharging arrangements as an integral part of all new building constructions through collection of rooftop rainwater. This Rule may be invariably enforced. A regulation may also be included in the Rules, specifying the maximum area to be paved outside the building with respect to the total plinth area of the building. The Local self Government Department may be addressed for this purpose.** ***(Para 3.37)***
6.27	**Before issuing clearance to any industry, the Pollution Control Board may consult the District Officer of the Ground Water Department to confirm that the proposed industry does not pollute groundwater. The Department of Environment may be addressed for this purpose.** ***(para 3.38)***

6.28	**Before granting permit/lease/licence etc. for all kind of quarrying and registration for crusher units, the Mining and Geology Department may consult the District Officer of the Ground Water Department to confirm that the Groundwater resources are not affected adversely. The Industries Department may be addressed for this purpose.** ***(Para 3.39)***
6.29	**Before granting permit for excavation of earth and sand mining the Revenue Authority may consult the District Officer of the Ground Water Department to confirm that the Ground water resources are not affected adversely. The Revenue Department may be addressed for this purpose.** ***(Para 3.40)***
6.30	**The Ministry of water Resources, Government of India has issued 'National Water Policy 2012' which is available in the web address 'http://wrmin.nic.in/writereaddata/linkimages/NWP2012Eng6495132651.pdf' . The Department may consider this policy for any modification in its functions.** ***(Para 3.41)***
6.31	**The Central Ground Water Authority issued 'Guidance/ Criteria for Evaluation of proposals/ requests for Groundwater abstraction, which came into force from 15.11.2012 (Available in the web address 'http://cgwb.gov.in/CGWA/documents/Approved%20Guidelines%20for%20evaluation%20of%20proposals.pdf'). The department may consider these guidelines for any modification in its functions.** ***(Para 3.42)***
6.32	**The Department may take action to publish a Revised Citizen Charter in view of the change of Functions as suggested by the study team.** ***(Para 3.46)***

6.33	**Indiscriminate appointment of Casual Labourers and their absorption as Seasonal Labourers is a major concern in the Department. They are being appointed without any clear cut guidelines. In the event of suggested withdrawal of the Department from survey and drilling activities, the Department may cease to appoint Casual Labourers immediately.** ***(Para 3.48)***
6.34	**It has been a regular news now-a days in the News papers that persons scared of police drowned after falling in wells. This necessitates issuing safety guideline to public while constructing water abstraction structures. The department may, therefore, issue a guidelines to provide safety measures to all existing abstraction structures including abandoned wells and newly constructed structures. Wide publicity of the guidelines may be given in all media. While framing guidelines, the Department may keep in mind the modified guidelines issued by the Hon'ble Supreme Court of India regarding the 'Measures for preventing of fatal accidents of small children due to their falling into abandoned bore wells and tube wells (available in the web address http://pib.nic.in/newsite/erelease.aspx?relid=99289)** ***(Para 3.49)***
LONG TERM	
6.35	**The Department may withdraw its activities of groundwater survey and drilling for private owners. No drilling rigs, pump testing units may be purchased in future. The existing rigs and pump testing units may be auctioned once its maintenance is found financially not**

	viable. ***(Rec. 2 under Sl. No. 1 of Para 3.29)***
6.36	**The service of existing survey and drilling staff etc. may be utilised for various Scheme and Deposit Works undertaken by the Department and supervision of private drillers.** ***(Rec. 3 under Sl. No. 1 of Para 3.29)***
6.37	**The private drilling agencies may be brought under 'Survey cum Drilling licence'. Only approved drilling agency who has 'Survey cum Drilling licence' may be permitted to do the survey and drilling works, as in the case of licensed electricians and plumbers under the Kerala State Electricity Board and the Kerala Water Authority, respectively. The 'Survey' and 'Drilling' licence shall not be issued separately, as each party may evade the responsibility in case of non yielding wells. The 'Survey cum Drilling licence' may be granted to an agency by fixing the criteria as follows:** **i) Availability of qualified Hydrologist, Geophysicist and Driller (their qualification and experience, period of validity of licence etc. may be fixed suitably by Government);** **ii) experience in the field of survey and drilling;** **iii) Reputation of the agency;** **iv) Other registration, if any, owned by the agency;** **v) Profit and loss account** **vi) Availability of sophisticated machinery;** **vii) quality of materials viz. Pipe etc. used (specifications of the materials to be used may be fixed by the department)** **viii) Acceptance in refunding drilling charges in case of non yielding wells** **ix) Willingness to dig open wells** **x) Any other matter relevant to the field.** ***(Rec. 4 under Sl. No. 1 of Para 3.29)***

6.38	**Licence for 'Pump Testing Unit' may also be granted to individuals or agencies as in the case of 'Survey cum Drilling licence' . The 'Survey cum Drilling' and 'Pump Testing licence' may be grated to an agency simultaneously. But for a particular work two different agencies may be engaged for 'Survey and Drilling' and Pump Testing.** ***(Rec. 5 under Sl. No. 1 of Para 3.29)***
6.39	**For overcoming shortage of qualified candidates, if any, to private drilling agencies, the Department may conduct short term paid courses on survey, well design, drilling, pump testing etc. Successful candidates may be given priority in the recruitment to relevant post under the Department. The Special Rules may be amended to this effect.** ***(Rec. 6 under Sl. No. 1 of Para 3.29)***
6.40	**It is to be made compulsory to engage agencies or individual who has 'Survey cum Drilling' and 'Pump Testing licence' for conducting survey, drilling and pump testing activities in connection with the activities of digging/ drilling, developing/ converting a well, irrespective of the nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability or non availability of pumps and its specification and the area (notified and other area). This may be made compulsory for private parties and Government institutions.** ***(Rec. 7 under Sl. No. 1 of Para 3.29)***
6.41	**The well census, which was dropped in the half way mark, may be continued more effectively.** ***(Rec. 2 under Sl. No. 2 of Para 3.29)***

6.42	**All groundwater structures throughout the State, including abandoned wells, shall be brought under the census and owners may be registered under the department. Registration may be made compulsory irrespective of the nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability or non availability of pumps and its specification and the area (notified and other area). The ground water structures under the control of Government/ quasi government institutions, organistaions and other bodies under the State and Central Government may also be brought under the well census. The form specified under (Appendix-VII) may be used for well census.** ***(Rec. 3&4 under Sl. No. 2 of Para 3.29)***
6.43	**Prior sanction of the Department may be made compulsory, throughout the State, for digging/ developing/converting a well, irrespective of the nature of wells (viz. open, bore well etc.), use of water (viz. drinking, domestic, agricultural, industrial purpose etc.) availability or non availability of pumps and its specification and the area (notified and other area). This may be made compulsory for private parties and Government institutions. The form specified under (Appendix-VIII) may be used for filing application for digging/ developing/ converting a well.** ***(Rec. 6&7 under Sl. No. 1 of Para 3.29)***
6.44	**The duties and responsibilities of the staff attached to the Workshop and Store (viz. Foreman, Store in charge, SLRs, CLRs etc.) may be re fixed. No recruitment in the above categories may be made in future.** ***(Rec. 3&4 under Sl. No. 3 of Para 3.29)***

6.45	**The three Analytical Laboratories may be upgraded to the level of getting accreditation of the 'National Accreditation Board for Testing and Calibration Laboratories (NABL)'.** ***(Rec. 3 under Sl. No. 4 of Para 3.29)***
6.46	**In view of the proposed changes in the objectives and activities of the department, the Director may issue a comprehensive Order, specifying the duties and responsibilities of each category of officers.** ***(Rec. under Sl. No. 5 of Para 3.29)***
6.47	**The existing procedures for 'registration of existing wells in the notified area' and 'registration as owner of ground water' as have been narrated in Rule 16 and 17 of the Kerala Ground Water (Control and Regulation) Rules, 2004 may be combined together. The suggested procedure is as follows:** **A web based application may be launched for uploading the details directly to the web, for conducting well census. This may be done 'Ward' wise using the services of trained 'Kudumbashree Units' and NGOs. The Longitude and Latitude (Now available even in smart phones) shall be recorded for identifying the position of the groundwater structure. The form under AppendixVII may be used for this purpose. An acknowledgement containing unique Registration No. may be given to the owner at the time of collection of data. The owners may be able to download the 'Certificate of Registration', containing digital signature, directly from the web using their registration No.** ***(Rec. 5 under Sl. No. 2 of Para 3.29)*** ***(Rec. under Sl. No. 1 of Para 3.31)***

6.48	**All activities viz. Survey, digging, drilling, pump testing may be permitted to carry out by the agencies and individuals having valid licence from the Department as mentioned in recommendation 7 under Sl.No. 1 of para 3.29. The Procedure to be followed is suggested as follows:** **1. Application for survey and drilling is to to be submitted to the District Office through the agency who has valid 'Survey cum drilling' licence, as in the case of procedures adopted for getting electric connection and water connection from Kerala State Electricity Board and Kerala Water Authority, respectively.** **2. The field staff of Hydrogeology and Geophysics branches inspect the site and submit report** **3. If it is feasible, processing charge (non refundable), as fixed by the Department, is to be collected and which may be treated as permission to do the activity** **4. The agency complete the activity and report to the District officer with relevant details.** **5. A field staff inspect the site and report the satisfactory completion of work and correctness of details furnished by the agency.** **6. Registration certificate of the well is issued to the owner.** **Note:** **i)If the activity is for industrial purpose, pump testing may be made compulsory. For this, licensed agency or individual may be engaged.** **ii) Water Meter may be made compulsory for industrial purposes as per Section 15(1) (f) of the aforesaid Act.** **iii) Issue of Registration Certificate in the case of activities for industrial purposes is subject to the scrutiny of District Level Evaluation Committee constituted for this purpose.** **iv) For deposit and other departmental works, existing procedure may be followed. However, work may be awarded to Licensed agencies inviting competitive quotation/ tender, as the case may be.** **v) For the case of all deposit and departmental works, pump testing and water meter may be made compulsory, as the groundwater draft will be comparatively high . The position may be reviewed periodically.** **vi) Report on quality analysis of groundwater may be obtained from Analytical Laboratory, whenever necessary.** ***(Rec. under Sl. No. 2 of Para 3.31)***

6.49	**The water samples are presently collected and brought to the Analytical Laboratories for testing. As a result, the field parameters viz. pH, electrical Conductivity, total dissolved solids, alkalinity etc. could not be analysed. The department may therefore study the feasibility of starting three mobile laboratories attached to the three Analytical Laboratories.** ***(Para 3.43)***
6.50	**Large quantity of data is collected by the Department as part of its regular functions and the services being rendered to the public and others. A research unit may be setup within the department to compile the data and conduct research in the field of groundwater resources.** ***(Para 3.35)***
6.51	**The Department may establish a comprehensive website. The details relevant to the public viz. Procedures for various services, fees, application forms etc. may be provided in the website as suo-moto disclosure of information. Online facility may be provided to public for getting services.** ***(Para 3.44)***
6.52	**e-office may be implemented in the department. e-payment facility may be provided for public.** ***(Para 3.45)***
6.53	**The Department is providing 50% of the drilling charges as subsidy to marginal farmers. In the event of suggested withdrawal of the Department from drilling activity, separate fund may be provided in the budget for granting subsidy to eligible marginal farmers. Instead of providing 50% of the drilling charge, a fixed amount may be sanctioned as subsidy to each marginal farmer, which may be fixed**

	suitably by the Department. ***(Para 3.47)***

Chapter- 7

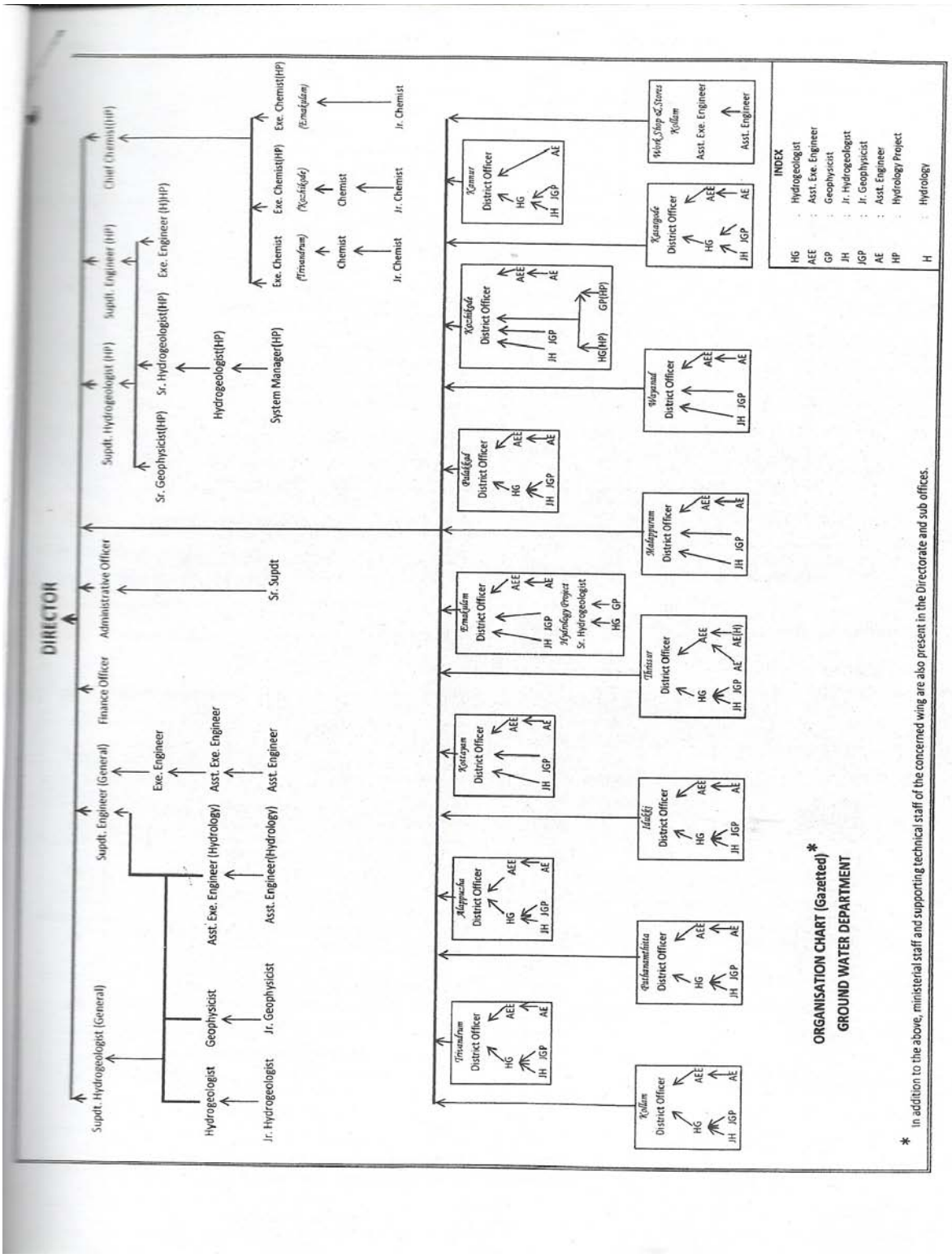
Acknowledgement

The Personnel and Administrative Reforms Department acknowledges with sincere thanks the co-operation extended to the Study Team by the staff of Water Resources Department in the Government Secretariat, Staff of Ground Water Directorate at Thiruvananthapuram, District Officers of different districts and the Regional Director of Central Ground Water Board at Thiruvananthapuram. The team would like to express their special thanks to the Administrative Officer, Directorate of Ground Water Department and the District Officer, Thrissur, for their whole hearted support and guidance, for the successful conduct and completion of the work study.

Secretary to Government

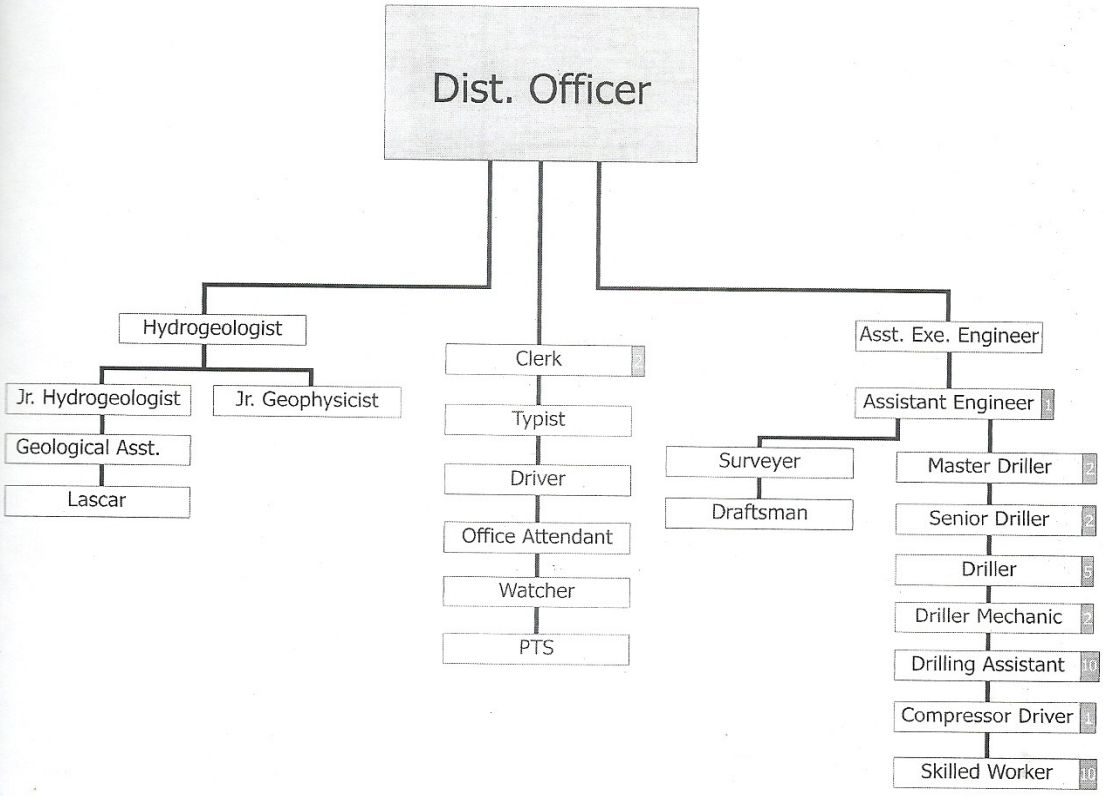
Personnel and Administrative Reforms (A R)Department

APPENDIX-I


DIRECTOR
Supdt. Hydrogeologist (General)
Supdt. Engineer (General)
Finance Officer
Administrative Officer
Supdt. Hydrogeologist (HP)
Supdt. Engineer (HP)
Chief Chemist(HP)
Exe. Engineer
Asst. Exe. Engineer
Asst. Engineer
Hydrogeologist
Geophysicist
Asst. Exe. Engineer (Hydrology)
Jr. Hydrogeologist
Jr. Geophysicist
Asst. Engineer(Hydrology)
Sr. Supdt
Sr. Geophysicist(HP)
Sr. Hydrogeologist(HP)
Exe. Engineer (H)(HP)
Hydrogeologist(HP)
System Manager(HP)
Exe. Chemist
Exe. Chemist(HP)
Chemist
Jr. Chemist
Thiruvananthapuram
Kollam
Pathanamthitta
Alappuzha
Kottayam
Idukki
Ernakulam
Thrissur
Palakkad
Malappuram
Wayanad
Kozhikode
Kannur
Kasaragode
Work Shop &C.Stores Kollam
District Officer
Asst. Exe. Engineer
Asst. Engineer
Hydrology Project
Sr. Hydrogeologist
HG
AEE
AE
JH
JGP
GP
AE(H)
HG(HP)
GP(HP)
INDEX
HG : Hydrogeologist
AEE : Asst. Exe. Engineer
GP : Geophysicist
JH : Jr. Hydrogeologist
JGP : Jr. Geophysicist
AE : Asst. Engineer
HP : Hydrology Project
H : Hydrology
ORGANISATION CHART (Gazetted) *
GROUND WATER DEPARTMENT
* In addition to the above, ministerial staff and supporting technical staff of the concerned wing are also present in the Directorate and sub offices.

APPENDIX-II

Groundwater Department
District Office
Organizational Chart



APPENDIX-III

Staff Strength

The Department has a sanctioned strength of 543 employees. In addition 19 posts have been sanctioned under HP. The list of sanctioned post are as below.

Name of post	Sanctioned strength
Director	1
Superintending Hydrogeologist	1
Superintending Engineer	1
Senior Hydrogeologist	7
Executive Engineer	7
Senior Geophysicist	1
Hydrogeologist	10
Assistant Executive Engineer (Hydrology)	1
Assistant Executive Engineer	15
Geophysicist	1
Junior Hydrogeologist	18
Junior Geophysicist	15
Assistant Engineer	17
Assistant Engineer (Hydrology)	2
Executive Chemist	1
Chemist	2
Junior Chemist	3
Chemical Assistant	2
Administrative Officer	1
Finance Officer	1
Senior Superintendent	1
Junior Superintendent	1
Head Clerk	1
Master driller	20
Senior Driller	30
Driller	53
Driller Mechanic	17
Drilling Assistant	96
Geological Assistant	9
Geophysical Assistant	1
Confidential Assistant	3
Surveyor	6
Draftsman	7
Store in Charge	3
Store Assistant	1
Foreman	1
Electrician	3
Compressor Driver	11
Motor Mechanica	2
Clerk	46
Typist	19
Driver	28
Tractor Driver	1
Tracer	2
Binder	1
Pump Operator	2
Machinist	2

Turner	1
Black Smith	1
Tinker	1
Workshop attender	1
Lab attender	2
Peon	18
Watcher	29
Lascar	14
Cleaner	1
Total	**543**

Part time sweeper	17
Skilled worker	48

- List Of Posts Sanctioned Under Hydrology Project

Name of the post	Sanctioned strength
Superintending Hydrogeologist	1
Superintending Engineer	1
Senior Hydrogeollgist	2
Executive Engineer (Hydrology)	1
Senior Geophysicist	1
Hydrogeologist	3
Geophysicist	2
Chief Chemist	1
Executive Chemist	2
Geological Assistant	1
System Manager	1
Surveyor	2
Total	19

Employees working on daily wages has the Department had engaged 161 CLR and 216 SLRs during 2013-14

APPENDIX-IV

Reg. No. ...
KL/TV/(N)/12/2003-2005

KERALA GAZETTE

കേരള ഗസറ്റ്

EXTRAORDINARY

അസാധാരണം

PUBLISHED BY AUTHORITY

അധികാരികമായി പ്രസിദ്ധീകരിക്കുന്നത്

Vol. XLIX | Thiruvananthapuram, Wednesday | 21st January 2004 | 2004 ജനുവരി 21 | No. 176

... 49 | തിരുവനന്തപുരം, ബുധൻ | 1st Magha 1925 | 1925 മാഘം 1 | നമ്പർ

GOVERNMENT OF KERALA

Water Resources (Ground Water) Department

NOTIFICATION

No. 33125/GW1/2003/WRD. *Dated, Thiruvananthapuram, 16th January, 2004.*

S. R. O. No. 59/2004.—In exercise of the powers conferred by section 3 of Kerala Ground Water (Control and Regulation) Act, 2002 (19 of 2002), the Government of Kerala hereby constitute the State Ground Water Authority with effect from the 15th day of January 2004 consisting of the following members, namely:—

(1) Secretary to Government, Water Resources Department, Government of Kerala .. Chairman

(2) Secretary to Government, Finance Department, Government of Kerala .. Member

(3) Secretary to Government, Local Self Government (Rural Development) Department, Government of Kerala .. Member

33/422/2004/MC

(4)	Director, Ground Water Department, Kerala	..	Secretary
(5)	Sri K. B. Ganesh Kumar, M. L. A.	..	Member (Nominated under item (a) of clause (v) of section 3(3)
(6)	Sri Johny Nelloor, M. L. A.	..	Member (Nominated under item (a) of clause (v) of section 3(3)
(7)	Dr. M. Nazimuddin, Head, Ground Water Division, Centre for Water Resources Development & Management Kunnamangalam, Kozhikode	..	Member (Nominated under item (b) of clause (v) of section 3(3)
(8)	Sri Gopalakrishnan Thandorappara, Member, Koothali Grama Panchayat Thandorappara-P. O., Kozhikode	..	Member (Nominated under item (c) of clause (v) of section 3(3)
(9)	Sri Mathew Joseph, Member, Municipal Council, Kothamangalam	..	Member (Nominated under item (d) of clause (v) of section 3(3)
(10)	Sri N. G. Sajeevan, Nellippillil House Kalloorkad, Muvattupuzha	..	Member Nominated under item (e) of clause (v) of section 3(3)

(11)	Smt. Rosamma Chacko, Kulangara, Mamoottil, Edathua-P. O., Alappuazha	..	Member (Nominated under item (f) of clause (v) of section 3(3)
(12)	Sri C. Mohanan Pillai, Krishnakripa, Podiyattuvilla-P. O. Valakom, Kollam	..	Member (Nominated under item (g) of claus (v) of section 3(3)
(13)	Sri George Kunnapuzha, Pullad-P. O., Thiruvalla	..	Member (Nominated under item (h) of clause (v) of section 3(3)

By order of the Governor,

K. J. MATHEW,
Principal Secretary to Government.

Explanatory Note

(This does not form part of the notification, but is intended to indicate its general purport.)

Sub-section (1) of section 3 of the Kerala Ground Water (Control and Regulation) Act, 2002 (19 of 2002) empowers Government to constitute State Ground Water Authority, with the members specified in Sub Section (3) thereof, Government have decided to constitute the said Authority with the members specified therein.

This notification is intended to achieve the above object.

PRINTED AND PUBLISHED BY THE SUPERINTENDENT OF GOVERNMENT PRESSES
AT THE GOVERNMENT CENTRAL PRESS, THIRUVANANTHAPURAM, 2004.

APPENDIX-V

Reg. No. രജി. നമ്പർ
KL/TV(N)/12/2003-2005.

KERALA GAZETTE
കേരള ഗസറ്റ്
EXTRAORDINARY
അസാധാരണം
PUBLISHED BY AUTHORITY
ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്

Vol. L
വാല്യം 50

Thiruvananthapuram,
Saturday
തിരുവനന്തപുരം,
ശനി

19th November 2005
2005 നവംബർ 19
28th Karthika 1927
1927 കാർത്തിക 28

No.
നമ്പർ 2482

GOVERNMENT OF KERALA

Water Resources (GW) Department

NOTIFICATION

G.O. (P) No. 58/2005/WRD. *Dated, Thiruvananthapuram 19th November, 2005.*

S. R. O. No. 1021/2005.—In exercise of the powers conferred by sub section (1) of section 6 of the Kerala Ground Water (Control and Regulation) Act, 2002 (19 of 2002), the Government of Kerala hereby notify the following blocks as 'notified areas' with effect from the 19th day of November, 2005, namely:—

Athiyannur	—	Thiruvananthapuram District.
Kodungalloor	—	Thrissur District
Chittoor	—	Palakkad District
Kozhikode	—	Kozhikode Disurict
Kasaragod	—	Kasaragod District.

By order of the Governor.

Explanatory Note

(This does not form part of the notification, but is intended to indicate its neral purport.)

Section 6 (1) of the Kerala Ground Water (Control and Regulation) Act, 2002 ct 19 of 2002) empowers the Government to regulate the extraction or use of ground water of any area declare by notification in the Gazette, such area as notified area for the purpose of this Act, with effect from such date as may be pecified therein.

The notification is intended to achieve the above object.

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AT THE GOVERNMENT CENTRAL PRESS, THIRUVANANTHAPURAM, 2005.

APPENDIX-VI

GOVERNMENT OF KERALA

Abstract

Water Resources Department - District Level Evaluation Committee - Constituted - Orders issued.

WATER RESOURCES (GROUND WATER) DEPARTMENT

G.O.(RT) No.1211 /2009/WRD. Dated, Thiruvananthapuram, 31..10..2009.

Read:- 1. Letter No.26-1/CGWA/Meeting /2009 -627 dated 16..9..2009 from the Government of India, Central Ground Water Authority, Ministry of Water Resources.
2. Letter No.T1/5315/09 dated 9..10..2009 from the Director, Ground Water Department , Thiruvananthapuram.

ORDER

As suggested by the Central Ground Water Authority in their letter read as 1st paper above and in the circumstances reported by the Director, Ground Water Department in his letter read as 2nd paper above, Government are pleased to constitute District Level Evaluation Committee in all Districts with the following members:-

i)	District Collector	- Chairman
ii)	District Officer, Ground Water Department	- Convener
iii)	Hydrogeologist, Central Ground Water Board	- Member
iv)	Representative from Industry	- Member
v)	Representative from Kerala State Pollution Control Board	- Member
vi)	Additional member to be adopted if required.	

The District Collector will nominate a representative from Industry.

(BY ORDER OF THE GOVERNOR)

DEVASIA.C.V.
DEPUTY SECRETARY TO GOVERNMENT.

To

All District Collectors.
All District Officers, Ground Water Department (through the Director, Ground Water Department)
The Regional Director, Central Ground Water Board, Kerala Region, Kedaram, Kesavadasapuram, Thiruvananthapuram.
The Central Ground Water Authority (with C/L).
The Director, Ground Water Department, Thiruvananthapuram.
The Member Secretary, Kerala State Pollution Control Board, Thiruvananthapuram.
The Director, Directorate of Industries and Commerce, Thiruvananthapuram.
S/F, O/C.

Forwarded / By Order

Section Officer.

APPENDIX-VII

FORM NO. ….....
KERALA GROUND WATER DEPARTMENT
[Specify relevant Act and Rule]
APPLICATION FOR REGISTRATION AS OWNER/ CHANGE OF OWNER OF GROUND WATER

Sl. No.	For Private owner(s)			For owner of State/ Central Government Departments &Quasi- Government/ Autonomous Bodies/ Aided institutions etc. under the State/ Central Government		
Tick (√) mark wherever applicable						
1	Name of existing owner(s) (if any)	:		Name(s)/Designation of existing owner(s) (if any)	:	
2	Existing Registration No. (if any)	:		Existing Registration No. (if any)	:	
3	Name of owner(s) in whose name the well is to be registered/ re-registered	:		Designation of owner to whom the well is to be registered/ re-registered	:	
4	Whether the owner resides in the place where the well locate (YES/ NO)	:				
5	Present address of owner(s): (i) Name of House/ Building	:		Address of owner: (i) Name of office	:	
	(ii) House/ Building No. allotted by Local body	:		(ii) Building No. allotted by Local body	:	
	(iii)Location	:		(iii)Location	:	
	(iv) Place	:		(iv) Place	:	
	(v) Post Office	:		(v) Post Office	:	
	(vi) District	:		(vi) District	:	
	(vii) PIN	:		(vii) PIN	:	
6	Location of the well where it situate: (i)Ward & Ward No.		:			
	(ii)Name of Panchayat/ Municipality/ Corporation		:			
	(iii)Block		:			
	(iv)Survey No. with sub division, if any, of the plot		:			
	(v)Name of Village Office		:			
	(vi)Taluk		:			
	(vii)District		:			
7	Well Location: (i)Latitude		:			
	(ii)Longitude		:			

8	Type of well [Abandoned well/Open well/ Filter point well/ Bore well/ Dug-cum- bore well/ Tube well/ Infiltration Gallery/ others (specify)]	:	
9	Depth of well (in metres)	:	
10	Diameter of well (in Centimetres)	:	
11	Purpose for which the well is used [Domestic/Office purpose (for Drinking Water and Sanitation only) Agriculture/ Industrial/ Others (specify)]	:	
12	*Average consumption of water per day in litres	:	
13	No. of beneficiaries (For domestic/Public Water Supply Scheme purpose only)	:	
14	Extent of area irrigated (in Ares) [For irrigation purpose only]	:	
15	Crops irrigated (For irrigation purpose only)	:	
16	Nature of use of water (for Industrial purpose only)	:	
17	Whether Water Metre is fitted (YES/NO)[For Industrial purpose only]	:	
18	Whether pump is used (YES/ NO)	:	
19	Specification of Pumps used: (i)Type of pump : Hand Pump/ Compressor Pump/ Centrifugal pump/ Jet Pump/ Submersible Pump/ Other (specify)	:	
	(ii) fuel used : Kerosene/ Petrol/ Diesel/ Electric, Solar, Other (specify)	:	
	(iii) Horse Power	:	
20	Whether the well situate in Notified Area (YES/NO)	:	
21	Distance from Public Drinking Water Source	:	
22	Other relevant details (if any)	:	
The details given above are true to the best of my knowledge and belief.			
Signature of Owner(s)		:	
Place		:	
Date		:	

Note:	1	Latest Receipt of land tax paid is to be produced. The registration shall be made in the name of the owner of the land as appear in the land tax receipt(In the case of private owners only)
	2	In the case of office buildings on rent/lease, the registration is to be made in the name of office
	*	Volume of an ordinary bucket is 20 Litres

For Office use only

Registration No. Allotted:

APPENDIX-VIII

FORM NO. ….....

KERALA GROUND WATER DEPARTMENT

[Specify relevant Act and Rule]

APPLICATION FOR DIGGING/ CONVERTING/DEVELOPING WELL FOR PRIVATE OWNERS

Tick (√) mark wherever applicable			
1	Purpose of Application (Digging/ Converting/Developing a well)	:	
2	Existing Registration No. of the well (if any) [For converting/developing only]	:	
3	Present address of owner(s): (i) Name of applicant	:	
	(ii) Name of House/ Building		
	(iii) House/ Building No. allotted by Local body	:	
	(iv)Location	:	
	(v) Place	:	
	(vi) Post Office	:	
	(vii) District	:	
	(viii) PIN	:	
I. FOR CONVERTING/DEVELOPING			
4	Purpose for which the well is propose to be converted/Developed [Domestic/ Agriculture/ Industrial/ Others (specify)]	:	
5	Reason necessitating the Conversion/ Development of the well	:	
II. FOR DIGGING NEW WELL			
6	Purpose for which the well is to be dug [Domestic/ Agriculture/ Industrial/ Others (specify)]	:	
7	Total requirement of water per day(in litres)	:	
8	Survey No. with sub division of the plot where the well is propose to be dug and Name of Village, Taluk and District	:	
9	Weather eligible for subsidy to Marginal Farmer(For Agriculture Purpose only)	:	
All the details given above are true to the best of my knowledge and belief. Signature of applicant Place: Date:			
Observations and proposal of the licenced agency regarding the feasibility of work:			
10	Nature of well found feasible to suit the requirement (Open Well, Filter Point Well, Bore Well, Dug cum Bore Well, Tube Well, Infiltration Gallery, others (specify)	:	
11	Distance of the proposed well from the existing Public drinking water source (in metres).	:	
12	Feasible location of the well proposed to be dug (For digging New Well only): (i)Ward & Ward No.	:	
	(ii)Name of Panchayat/ Municipality/ Corporation	:	
	(iii)Block	:	
	(iv)Survey No. with sub division, if any, of the plot	:	
	(v)Name of Village Office	:	
	(vi)Taluk	:	
	(vii)District	:	

13	Well Location: (i)Latitude	:	
	(ii)Longitude	:	
14	Diameter of well propose to be dug (in Centimetres)	:	
15	Depth of well anticipated (in metres)	:	
16	Average yield of well expected per day (in litres)	:	
17	No. of beneficiaries (For domestic purpose only)	:	
18	Extent of area expected to be irrigated (in Ares) [For irrigation purpose only]	:	
19	Crops expected to be irrigated (For irrigation purpose only)	:	
20	Nature of use of water (for Industrial purpose only)	:	
21	Whether Water Metre is to be fitted (YES/NO)[For Industrial purpose only]	:	
22	Whether pump is expected to be used (YES/ NO)	:	
23	Specification of Pump propose to be used: (i)Type of pump : Hand Pump/ Compressor Pump/ Centrifugal pump/ Jet Pump/ Submersible Pump/ Other (specify)	:	
	(ii) fuel proposed to be used : Kerosene/ Petrol/ Diesel/ Electric, Solar, Other (specify)	:	
	(iii) Expected Horse Power	:	
24	Whether the well situate in Notified Area (YES/NO)	:	
25	Other relevant details (if any)	:	

We have inspected the site and conducted survey. The details given above are true best of our knowledge and belief.
Signature of the Licenced agency:
Name :
Licence No.

Space for recording Route Map

Report of the Inspecting authority regarding the feasibility of the work
Signature of the Inspecting authority:

Orders of the District Officer
Signature of the District Officer:

Completion Report of the Licenced agency(Details of any changes in item No. 15-25 are to be reported)
Signature of the Licenced agency:
Name :
Licence No.

Observation of the Pump testing agency (For Industrial purpose only)
Signature of the Licenced agency:
Name :
Licence No.

Remarks of Analytical Laboratory (if required)
Signature of Executive Chemist:

Final report of the Inspecting authority (Details of any changes in item No. 15-25 are to be reported)
Signature of the Inspecting authority

Orders of the District Officer
Signature of the District Officer:

Note:	1	Latest Receipt of land tax paid is to be produced. The registration shall be made in the name of the owner of the land as appear in the land tax receipt
	2	For claiming subsidy Marginal Farmer Certificate is to be produced from competent authority
	3	Before Conversion/ Developing of well , the original well should be registered.

For Office use only

Registration No. Allotted:

APPENDIX-IX

"ഭരണഭാഷ – മാതൃഭാഷ"

Sectt. 37. 3/66/2011/20 Lakh. GPM. © Govt. of Kerala

GOVERNMENT OF KERALA

Abstract

Water Resources (Ground Water) Department – Establishment - Delegation/Enhancement of powers of officers of Ground Water Department - Orders issued.

WATER RESOURCES (GROUND WATER) DEPARTMENT

G.O.(MS)No. 112/2013/WRD. Dated, Thiruvananthapuram, 11.11.2013.

Read: 1.Letter No.T2/187/12 dated 31.05.2012 of the Director, Ground Water Department, Thiruvananthapuram.

2. GO(Rt) No.119/13/WRD dated 08.02.2013.

3. GO(MS) No.507/13/Fin. dated 05.10.2013

ORDER

As per the letter read as 1st paper above, the Director, Ground Water Department has furnished proposal for delegation of powers of various officers of Ground Water Department. As per the Government Order read as 2nd paper above, Empowered Committee was constituted for considering the delegation of powers of officers of Ground Water Department. The Empowered Committee examined the proposal and recommended certain revisions in the proposal.

2. Accordingly Government have examined the matter in detail. As per the Government Order read as 3rd paper above, the financial powers of the Director, Ground Water Department have been enhanced. In the circumstances, Government are pleased to enhance the administrative and technical powers of various officers of Ground Water Department as detailed in the Annexure to this Government Order.

3. This order will have its effect from the date of this Government Order

(By order of the Governor)

C. REGHU. IAS

ADDITIONAL SECRETARY TO GOVERNMENT

To

The Director, Ground Water Department, Thiruvananthapuram

The Principal Secretary, F&ARD, Government Secretariat, Thiruvananthapuram

The Secretary (Expenditure), Finance Department, Govt. Secretariat, Thiruvananthapuram

The Finance Department (vide U.O. No.44317/AW-A2/13/Fin dated 23.10.13)

The Principal Accountant General (Audit), Kerala, Thiruvananthapuram,

The Accountant General (A&E), Kerala, Thiruvananthapuram.

The Private Secretary to Minister (Water Resources)

Stock file/Office copy.

Forwarded/By Order

Section Officer

ANNEXURE
DELEGATION OF POWERS OF OFFICERS IN GROUND WATER DEPARTMENT

Sl. No.	Item	Existing Powers	No. and date of GO delegating the existing powers	Revised Powers
	ADMINISTRATIVE POWERS			
DISTRICT OFFICER				
1	**Leave** To sanction leave	Now only for last grade posts	GO(MS)No.109/98/Ir.D dated 30.10.1998	To grant all kinds of leave below 120 days except study leave and special disability leave to all NGOs.
	TECHNICAL POWERS			
SUPERINTENDING ENGINEER				
2	**Original Works** To issue technical sanction for original works including repair work and construction of tube wells, bore wells, filter point wells, distribution system etc in each case subject to the condition that Administrative Sanction has been issued by the competent authority.	₹ 10 Lakhs	GO(P)No.109/98/Ir.D dated 30.10.1998	₹ 25 Lakhs
3	**Repair of machinery and equipments** To issue technical sanction for repair of drilling rigs and allied equipments for each estimate including purchase of spares.	₹ 2 Lakhs	GO(P)No.109/98/Ir.D dated 30.10.1998	₹ 15 Lakhs
4	**Essentiality and economy certificate for repair of all machinery and equipments** To issue essentiality and economy certificate for repair of all machinery and equipments of the department.	At present technical sanction power of Superintending Engineer is used for the purpose.		₹ 15 Lakhs

5	**Petty Construction works** To issue technical sanction for petty construction.	₹ 5,000	GO(P)No.109/98/Ir.D dated 30.10.1998	₹ 50,000
6	**Electrification Works** To issue technical sanction for electrification works	₹ 5,000	GO(P)No.109/98/Ir.D dated 30.10.1998	₹ 20,000
SUPERINTENDING HYDROGEOLOGIST				
7	**Original Works** To issue technical sanction for each work for the construction of groundwater conservation and recharge structures.	₹ 3 lakhs	GO(P)No.109/98/Ir.D dated 30.10.1998	₹ 15 Lakhs
DISTRICT OFFICER				
8	**Original works** To issue technical sanction for original works including construction of tube wells, bore wells, filter point wells, distribution systems, water lifting systems and hand pump repair based on the Administrative Sanction received from competent authority (for each case)	Nil	NA	₹ 4 lakhs
9	**Tenders** To invite tenders for which administrative sanction and technical sanction has been issued by the competent authority	₹ 2 lakhs	GO(MS)No.2932/98/Fin dated 23.11.1998	₹ 10 lakhs
10	**Purchase of stores** To purchase stores at a time, subject to store purchase rules.	₹ 25,000	GO(MS)No.2932/98/Fin dated 23.11.1998	₹ 3 lakhs
11	**Repair of machinery and Equipments** To sanction repair of machinery and equipments at a time including cost of spares based on the essentiality certificate issued by the competent authority.	₹ 25,000	GO(MS)No.2932/98/Fin dated 23.11.1998	₹ 1 lakh

EXECUTIVE ENGINEER					
12	Essentiality and Economy certificate for repair of machinery and equipments To issue essentiality and economy certificate for repair of machinery and equipments (at a time)	₹.50,000	GO(MS)No.2932/98/Fin dated 23.11.1998		₹ 1 lakh
ASSISTANT EXECUTIVE ENGINEER (WORKSHOP & STORES)					
13	Purchase of Stores To purchase stores in accordance with store purchase rules	Nil	NA		₹ 10,000/- at a time, subject to a maximum limit of ₹ 1 lakh per year.
14	Essentiality and Economy certificate for repair of departmental vehicles To issue essentiality and economy certificate for the repair of departmental vehicles in departinent work shop.	Upto ₹ 10,000/- in respect of jeeps, vans, cars etc and ₹ 15,000/- in respect of lorries including cost of spares.	GO(MS)No.2932/98/Fin dated 23.11.1998		Upto ₹ 15,000/- in respect of jeeps, vans, cars etc and ₹ 25,000/- in respect of lorries including cost of spares.
15	Essentiality & Economy Certificate for repair of departmental machineries To issue essentiality and economy certificate for the repair of department machinery and equipments in department workshop at a time.	₹ 20,000			₹ 50,000

APPENDIX-X

NO.GWKNR/1105/2011

Office of the District Officer
Ground Water Dept.
2nd Floor, Addl. Civil Station.
Kannur-2
Ph-0497-2709892
Mob: 9446392329
Dated: 12.12.2012

From
The District Officer

To
The Director,
GWD, Thiruvananthapuram

Sir,

Sub:- GWD – Kannur – implementation of various schemes – revised schedule of rates – modification requested - reg.

Ref:- 1. That Office letter No. T1/6790/12 Dated: 3.12.2012

Referring to the above, I may report the following for your kind reference and request you to take necessary steps to revise the rate with immediate effect. The Department is doing almost all the works through contractors. Statutory deductions [now 5.03% of Bill amount] are to be made by all the District Officers from each of the contractors. Contractors Profit is to be included for each and every item while preparing the Department rate. District Officers are not competent to allow excess over estimate and almost all the works are to be executed for estimated rate or below rate. To execute the works with good quality, the department rate should be arrived in such a way that the contractor should not be in loss by executing such works. If the contractors lose his money for executing Department works, nobody will be ready to take up the work and hence will affect the Physical Progress of the Department. Under the above circumstances, I request you to take immediate steps to revise the Department rates as detailed below.

Repair of India Mark II Hand Pump:

Pulling out and re – erection of Hand Pump(inclusive of repair)
: revised rate is Rs.3500/E

Hand Pump erection charge(new erection) : revised rate is Rs.2500/E

New Hand pump errection have no much variation from re-erection after repairs. Hence the pulling out and re-erection charge (for repair) should be revised to at least Rs.5000/-(2500 + 2500).

Price list for spare parts:

Almost 90% of the items show lesser cost than the existing rates. The cost should either be market rate arrived by providing C.P or it can be arrived from the spare parts cost of M/s Murti by including CST(5%) and 10% CP. The rate revised by the Department is the same as that of M/s Murti Enterprises, New Delhi.

1 Repair of India Mark II Hand Pumps

Sl. No.	Specification	Rate fixed by Dept.	Proposed Rate	
a	Pulling out of Hand pump for repairing and re-erecting of hand pump	3500	**5000**	**As Charge for H.P erection[New] is Rs.2500/E, this should be 5000**
b	Cost of spare parts[as per actuals]	4500	**4500**	
	Total	**8000**	**9500**	

2 PRICE LIST FOR SPARE PARTS

Sl. No.	Specification	Rate fixed by Dept.	Rate of M/s Murti Enterprises	Rate arrived by adding 5% CST	Rate arrived by adding 10 % C.P	Proposed Rate[Rounded}
A	**CONVERSION HEAD ASSEMBLY**					
1	Head Assembly complete[with Head, Handle, Ball Bearings and Chain Assembly]	2900	2900	3045.00	3349.50	3350
2	Head with welded Components only w/o cover	1380	1380	1449.00	1593.90	1600
3	Handle[welded Components only	1150	1150	1207.50	1328.25	1330
4	Additional Plate	280	280	294.00	323.40	325
5	Front Cover	180	180	189.00	207.90	210
6	Axle[Stainless steel]	140	140	147.00	161.70	160
7	Ball Bearing 6204 Z	130	130	136.50	150.15	150
8	Chain with Coupling	145	145	152.25	167.48	170
9	Spacer for Axle pin	12	12	12.60	13.86	15
10	M 12 X 20 Hex Bolt for Top Head cover	6	6	6.30	6.93	7
11	M 12 X 40 Hex Bolt	7	7	7.35	8.09	8
12	M 12 Nut	3	3	3.15	3.47	4
13	M 12 Washer	3	3	3.15	3.47	4
14	M 10 X 40 H. T Bolt	6	6	6.30	6.93	7
15	M 10 Nyloc Nut	4	4	4.20	4.62	5
16	Special Washer for Axle	4	4	4.20	4.62	5

B	**CYLINDER ASSEMBLY**					
1	Cylinder Assembly Complete	1750	1750	1837.50	2021.25	2025
2	C.I Cylinder Body with Liner	600	600	630.00	693.00	700
3	Plunger rod SS	130	130	136.50	150.15	150
4	Reducer Cap	100	100	105.00	115.50	116
5	Plunger yoke Body	155	155	162.75	179.03	180
6	Spacer	120	120	126.00	138.60	140
7	Follower	155	155	162.75	179.03	180
8	Upper valve [one piece]	55	55	57.75	63.53	65
9	Check Valve Guide	75	75	78.75	86.63	90
10	Check Valve Seat	120	120	126.00	138.60	140
11	Rubber Seat Retainer	60	60	63.00	69.30	70
12	Sealing ring[Nitrial Rubber]	12	12	12.60	13.86	15
13	Rubber seal Upper valve	4	4	4.20	4.62	5
14	Rubber Seating check Valve	5	5	5.25	5.78	6
15	Pump Bucket[Nitrial Rubber]	14	14	14.70	16.17	16
16	Upper Valve Assembly comprising of S.S PlungerRod. Plunger Yoke Body, Spacer 2 Nos. Bucket Washers	660	660	693.00	762.30	765
17	Same as above but without Plunger Rod	550	550	577.50	635.25	635
18	Lower Valve Assembly comprising of Rubber seat Retainer, Check Valve Seat, Check Valve Guide Rubber sealing	300	300	315.00	346.50	350
C	**WATER TANK**					
1	Water Tank	1150	1150	1207.50	1328.25	1330
2	Pipe Socket	75	75	78.75	86.63	90
D	**PEDESTEL**					
1	Pedestel[Ordinary]	1900	1900	1995.00	2194.50	2200
E	**CONNECTING RODS**					
1	12 MM dia X 3 M electro galvanized	190	190	199.50	219.45	220
2	Hex. Coupler 12 X 50 mm	14	14	14.70	16.17	16
3	Hex. Coupler 12 X 20 mm	10	10	10.50	11.55	12
E	**RISER PIPE**					
1	GI Riser Pipe[B Class] 3 m long 32 mm bore size both end threaded with one end socket	620	620	651.00	716.10	720
	NEW HAND PUMP RATE					
1	ISI Marked India Mark II[Standard] Deep well hand pump conforming to IS: 15500[Part II]2004 with 10 Nos. GI pipe[B Class] 3 m long 32 mm bore both end threaded with one end socket and 10 Nos. connecting rods	17325	17325	17325.00	19057.50	19100

SUBMERSIBLE PUMP, CABLE FOR SUB PUMP, NYLON ROPE, UPVC PIPE, HDPE PIPE, TANK CONNECTOR

Rates mentioned as existing rate is the rates existed before last rate revision. Almost all the revised rates show lesser rates when compared to last rate revision. Detailed proposal is given below.

Sl.No.	*Item*	*Rate mentioned as existing rate*	*Revised Rate (Rs)*	Actual existing rate	*Proposed Revised rate*
1	**SUBMERSSIBLE PUMP**				*By adding 10% to the existing rate*
A	***Sngle phase including panel board***				
(i)	1 HP 14 stage 83-30 Head	18000	20000	19800	*21750*
(ii)	1 HP 24 Stage 117-51 head	20500	22600	22250	*24500*
(iii)	1 HP 28 stage 127-59 head	22000	24500	24200	*26600*
(iv)	1.5 HP 18 stage 107-43 head	20300	22500	22330	*24600*
(v)	1.5 HP 21 stage 125-50 head	21500	23700	23650	*26000*
(vi)	2 HP 18 stage 113-40 head	23200	25500	25520	*28000*
(vii)	2 HP 28 stage 167-67 head	25250	27800	27775	*30550*
(viii)	3 HP 22 stage 116-56 head	29250	32000	32175	*35400*
(ix)	3 HP 27 stage 170-60 head	31500	34500	34650	*38100*
B	***Three Phase excluding panel board***				
(i)	3 HP 22 stage 116-56 head	23200	25500	25520	*28000*
(ii)	3 HP 27 stage 170-60 head	25000	27500	27500	*30250*
(iii)	5.5 HP 24 stage 137-48 head	28500	31000	31350	*34500*
(iv)	3 HP 26 stage 149-52 head	29300	32000	32230	*35500*

2	**CABLE FOR SUBMERSSIBLE PUMP**				
(i)	1.5 mm	51/m	60/m	56	*62*
(ii)	2.5 mm	75/m	85/m	83	*92*
(iii)	4 mm	113/m	125/m	125	*138*
3	**NYLON ROPE**				
(i)	12 mm Thick	20/m	25/m	23	*25*
(ii)	14 mm thick	25/m	30/m	29	*32*
(iii)	Steel rope	71/m	85/m	82	*90*
4	**UPVC PIPE**				
(i)	32 mm dia	145/m	170/m	167	*184*
(ii)	40 mm dia	180/m	210/m	207	*228*
(iii)	50 mm dia	207/m	240/m	238	*262*
5	**HDPE PIPE**				
(i)	63 mm dia	125/m	145/m	138	*152*
(ii)	50 mm dia	80/m	90/m	88	*97*
(iii)	40 mm dia	65/m	75/m	72	*80*
(iv)	32 mm dia	45/m	50/m	50	*55*

Considering the above facts, the rate may kindly be revised as requested with retrospective effect.

Yours faithfully,

DISTRICT OFFICER

DISTRICT OFFICER
GROUND WATER DEPARTMENT
2nd FLOOR, ADDITIONAL CIVIL STATION
KANNUR - 670 002

29.01.2013 ലെ മീറ്റിംഗിൽ അവതരിപ്പിക്കുന്നതിനുള്ള കുറിപ്പ്

1. ഇപ്രാവശ്യത്തെ വരൾച്ച നേരിടുന്നതിന ഭൂജലവകുപ്പിനെ സർക്കാർ വളരെയധികം വിശ്വാസത്തിലാണെടുത്തിട്ടുള്ളത്. ഭൂജലവകുപ്പിന്റെ കഴിവ് പൊതുജനത്തെയും സർക്കാരിനെയും ബോധ്യപ്പെടുത്താനുള്ള ഒരു അവസരമാണ് ലഭ്യമായിട്ടുള്ളത്. വരൾച്ചയ്ക്കായുള്ള ഫണ്ട് 2010 ലെ പോലെ ഡി.ഡി മുഖേന ജില്ലാ ഓഫീസുകൾക്ക് വിതരണം ചെയ്യണം. മുൻപ് പട്ടികജാതി വികസന വകുപ്പ് ഒന്നര കോടി രൂപ നമ്മുടെ വകുപ്പിൽ നിക്ഷേപിച്ചിട്ട് ഇന്ന് 7 വർഷം കഴിഞ്ഞു. അതിന്റെ പുരോഗതി എന്തെന്ന് ഇപ്പോൾ എല്ലാവർക്കും അറിയാവുന്നതാണ്. അത് പോലെയായിരിക്കരുത് ഇപ്പോഴത്തെ വരൾച്ചാ ഫണ്ട് വിനിയോഗം.

2. നമ്മുടെ വകുപ്പ് ഇപ്പോൾ പലവിധ പദ്ധതികൾ നടപ്പിലാക്കിവരുന്നുണ്ട്. ഇവയിൽ 90 ശതമാനത്തിലധികം വരുന്ന പ്രവൃത്തികളും കരാറുകാർ മുഖേനയാണ് പൂർത്തീകരിക്കുന്നത്. മറ്റ് വകുപ്പുകൾ ടെണ്ടർ ക്ഷണിക്കുമ്പോൾ നിരവധി കരാറുകാർ പങ്കെടുക്കുമ്പോൾ ഭൂജലവകുപ്പ് വിളിക്കുന്ന ടെണ്ടറുകളിൽ പങ്കെടുക്കുന്നതിന് ആരും സ്വമേധയാ പങ്കെടുക്കാതിരിക്കുവാനും ജില്ലാ ഓഫീസർമാർ കരാറുകാരെ വിളിച്ചുവരുത്തി ടെണ്ടറിൽ പങ്കെടുപ്പിച്ച് പ്രവൃത്തി ഏൽപ്പിച്ചുകൊടുക്കുവാനിടയാക്കുന്നതെന്തുകൊണ്ടെന്ന് ചിന്തിക്കേണ്ട സമയം അതിക്രമിച്ചിരിക്കുന്നു എന്നുള്ളതാണ് യാഥാർത്ഥ്യം.

ഏതു വകുപ്പിനെ സംബന്ധിച്ചായാലും കരാറുകാർ മുഖേന നടപ്പിൽ വരുത്തുന്ന പ്രവൃത്തികൾ മുഴുവൻ പൂർത്തീകരിക്കുന്നത് വരെയുള്ള് മുഴുവൻ ചിലവും കരാറുകാർ സ്വന്തം കയ്യിൽ നിന്നും സർക്കാരിന് വേണ്ടി മുടക്കുകയും ബിൽ തുകക്കായി മാസങ്ങൾ കാത്തിരിക്കേണ്ടി വരികയും ചെയ്യുന്നുണ്ട്. കരാറുകാരന് ബിൽ തുക ലഭിക്കുവാൻ താമസം വരുന്ന ഓരോ മാസത്തിനും ബിൽ തുകയുടെ 1% എന്ന കണക്കിൽ നഷ്ടം വരുന്നു എന്നുള്ളതാണ് യാഥാർത്ഥ്യം. പണം മുടക്കി മുഴുവൻ പ്രവൃത്തിയും സർക്കാരിന് വേണ്ടി ചെയ്യുന്ന കരാറുകാരെ യഥാർത്ഥത്തിൽ ആദരിക്കുന്നതിന് പകരം അവരെ ക്രൂശിക്കുകയാണ് നമ്മെപ്പോലുള്ള സർക്കാർ ഉദ്യോഗസ്ഥർ ചെയ്യുന്നത്. ഒരു പണിയും ചെയ്യാതെ തന്റെ പണം ഫിക്സഡ് ഡെപ്പോസിറ്റ് ചെയ്യുകയാണെങ്കിൽ ചുരുങ്ങിയത് 8% പലിശ ലഭിക്കുമെന്നിരിക്കെ, പണം മുടക്കുകയും പ്രവൃത്തി പൂർത്തീകരിക്കുന്നത് വരെ ഇതിൽ പങ്കാളിയാവുകയും ചെയ്യുന്ന കരാറുകാർക്ക് നഷ്ടം സംഭവിച്ചുകൊണ്ടിരിക്കുമ്പോൾ സർക്കാർ പ്രവൃത്തി ഏറ്റെടുത്ത് നടത്തുവാൻ കരാറുകാരില്ലാത്ത ഒരു അവസ്ഥ സംജാതമാകും. ഇതിന് പരിഹാരമായി പൊതുമരാമത്ത് ഷെഡ്യൂളുകൾ പരിഷ്കരിക്കുമ്പോൾ ഉടൻ തന്നെ നമ്മുടെ നിരക്കുകളും പരിഷ്കരിക്കേണ്ടതായുണ്ട്. 2012 ലെ ഷെഡ്യൂൾ പരിഷ്കരണത്തെത്തുടർന്ന് നമ്മുടെ വകുപ്പിലെ നിരക്കുകൾ വളരെ പെട്ടെന്ന് പരിഷ്കരിച്ചുത്തരവായതിലുണ്ടായ സന്തോഷം ഞാൻ പലരെയും വിളിച്ചറിയിക്കുകയും ചെയ്തിരുന്നു. എന്നാൽ നിരക്കിൽ നിർബന്ധമായും വരുത്തേണ്ട ചില മാറ്റങ്ങളെക്കുറിച്ച് വളരെ ചിന്തിച്ച് ഒരു പ്രൊപ്പോസൽ സമർപ്പിക്കുകയും ചെയ്തിരുന്നു. എന്നാൽ വിവിധ ഓഫീസുകളിൽ നിന്നും ലഭിച്ചിട്ടുള്ള സാങ്കേതികാനുമതി അപേക്ഷകൾ തീർപ്പാക്കാനുണ്ടെന്ന കാരണം പറഞ്ഞ് ആയത് പരിഗണിച്ചതേയില്ലയെന്നുള്ളതാണ് യാഥാർത്ഥ്യം. മുൻഗണന കൊടുക്കേണ്ടത് ഏത് വിഷയത്തിനെന്ന തിരിച്ചറിവില്ലാത്തതാണൊ ഇതിനുള്ള കാരണമെന്ന് എനിക്കറിയില്ല. എസ്റ്റിമേറ്റ് വെരിഫിക്കേഷനിൽ പ്രധാന പങ്ക് വഹിക്കുന്ന ഷെഡ്യൂൾ പരിഷ്കരണത്തിന യാതൊരു പരിഗണനയും നൽകാതെ സാങ്കേതികാനുമതിയ്ക്കുള്ള അപേക്ഷകൾ പരിഗണിക്കുന്നത് പരിഷ്കരണത്തോടുള്ള നിലപാടെന്തെന്ന് സ്വയം വെളിപ്പെടുത്തുന്നതാണ്.

നിരക്കുകളിൽ നേരത്തെ നടത്തിയ പരിഷ്കരണം കണക്കാക്കാതെയാണ് ഇലക്ട്രിക്കൽ സാമഗ്രികളുടെ നിരക്ക് പരിഷ്കരിച്ചിരിക്കുന്നത്. മറ്റൊരുകാര്യം മാർക്കറ്റ് നിർക്കിനോടുകൂടി കരാറുകാർക്കുള്ള ലാഭവിഹിതം ചേർക്കാൻ കഴിയില്ലെന്നാണ്. ഇലക്ട്രിക്കൽ സാമഗ്രികളുടെ നിരക്ക് മുൻപ് നിലവിലുണ്ടായിരുന്നതിലും കുറവ് രേഖപ്പെടുത്തിയിട്ടുള്ളതും ഇപ്പോൾ ശ്രദ്ധേയമാണ്. കൈപ്പമ്പ് റിപ്പയറിന്റെ കാര്യത്തിൽ, കൈപ്പമ്പ് പുറത്തെടുക്കുന്നതിനും തിരിച്ചിറക്കുന്നതിനും കൂടി 3500 രൂപയും എന്നാൽ പുതിയ കൈപ്പമ്പ് സ്ഥാപിക്കുന്നതിന് 2500 രൂപയും നിശ്ചയിച്ചുത്തരവായിരിക്കുന്നു. യഥാർത്ഥത്തിൽ കൈപ്പമ്പ് റിപ്പയർ ചെയ്ത് തിരിച്ചിറക്കുന്നതും പുതിയ കൈപ്പമ്പ് സ്ഥാപിക്കുന്നതിനും ഒരേ നിരക്ക് തന്നെയാണ് നിശ്ചയിക്കേണ്ടിയിരുന്നത്. റിപ്പയർ ചെയ്യുന്നതിന് പുറത്തെടുക്കുന്നതിനും ഇതേ നിരക്ക് തന്നെ നിശ്ചയിക്കേണ്ടിയും വരും. എന്നാൽ റിപ്പയർ ചെയ്യുക(സ്പെയർ പാർട്സുകൾ മാറ്റുക) എന്നതിന് ഒരു പൈസ പോലും വകയിരുത്തുന്നില്ല. മാത്രമല്ല ന്യൂഡെൽഹിയിലുള്ള് സ്ഥാപനം നൽകാമെന്ന് പറയുന്ന നിരക്കിൽ തന്നെ(അവർ ആവശ്യപ്പെടുന്ന 5% CST പോലും ഉൾപ്പെടുത്താതെ) സ്പെയർ പാർട്സുകൾ വാങ്ങി കരാറുകാർ റിപ്പയർ ചെയ്യണമെന്ന് പറയുന്നതിൽ എന്ത് യുക്തിയാണുള്ളത്. ജില്ല ഓഫീസർമാരായിട്ടുള്ളവർ ഓരൊ പ്രവൃത്തിയും പൂർത്തീകരിക്കുന്നതിന് എത്രമാത്രം പ്രയത്നിക്കുന്നുണ്ടെന്നുള്ളത് എല്ലാവർക്കും അറിയാമെന്നാണ വിശ്വാസം. വകുപ്പ് പദ്ധതികളൊഴികെയെല്ലാം എസ്റ്റിമേറ്റ് നിരക്കിലല്ലാതെ നടപ്പിലാക്കുവാൻ കഴിയില്ല. മാത്രമല്ല എം.പി ലാഡ്, എം.എൽ.എ എസ്.ഡി.എഫ് എന്നിവയിൽ 5% ഓവർ ഹെഡ് ചാർജ്ജ് അനുവദിച്ച് തരുന്നുമില്ല. എങ്കിലും പൊതുജനങ്ങൾക്കുതകുന്ന പദ്ധതികൾ എങ്ങിനെയും നടപ്പിലാക്കണമെന്ന ചിന്തയും ഭൂജലവകുപ്പ് മറ്റ് വകുപ്പുകളെക്കാളുപരി ജനോപകാരപ്രവൃത്തികൾ വളരെ വേഗത്തിൽ പൂർത്തീകരിക്കുന്നുണ്ടെന്ന് മറ്റുള്ളവരെ ബോധ്യപ്പെടുത്തിക്കൊടുക്കുന്നതിനും വേണ്ടിയാണ് ചിലരെങ്കിലും ശ്രമിച്ചുകൊണ്ടിരിക്കുന്നത്. ഡെലിഗേഷൻ ഓഫ് പവേഴ്സിൽ ഡയറക്ടർക്ക് 25 ശതമാനം വരെ ടെണ്ടർ എക്സസ് കൊടുക്കാമെന്നിരിക്കെ 10 ശതമാനം വരെ മാത്രം അനുവദിക്കാനുള്ള അധികാരമെ ഉള്ളു എന്ന് പറയുന്നതെന്തുകൊണ്ടെന്ന് മനസ്സിലാകുന്നില്ല. ഒരു നിശ്ചിത ശതമാനം വരെ ടെണ്ടർ എക്സസ് അനുവദിക്കുവാൻ ജില്ലാ ആഫീസാർമാർക്ക് തന്നെ അധികാരം നൽകേണ്ടതാണ്.

3. മുൻ കാലങ്ങളിലുൻണ്ടായിരുന്നത് പോലെ ഭൂജല സർവ്വേയും കുഴൽ കിണർ നിർമ്മാണവും മാത്രമല്ല ഭൂജല വകുപ്പ് ഏറ്റെടുത്ത് നടത്തിക്കൊണ്ടിരിക്കുന്നത്. മൈക്രോ കുടിവെള്ള പദ്ധതികൾ, ആർടിഫിഷ്യൽ റീചാർജ്ജ് പദ്ധതികൾ എന്നിവ ഇതിൽ മുഖ്യമാണ. ഇക്കാരണത്താൽ എല്ലാ ജില്ലാ ഓഫീസുകളിലും അസി: എക്സി: എഞ്ചിനീയർ, ഹൈഡ്രോജിയോളജിസ്റ്റ്, അസി: എഞ്ചിനീയർ-സിവിൽ എന്നീ തസ്തികകൾ നിർബ്ബന്ധമായും ഉണ്ടായിരിക്കേണ്ടതാണ്. ഇവ ഇല്ലാത്ത സ്ഥലങ്ങളിൽ പുതിയ തസ്തികകൾ സൃഷ്ടിക്കാനുള്ള നടപടികൾ ത്വരിതപ്പെടുത്തേണ്ടതുണ്ട്.

4. പ്രവൃത്തികൾ പൂർത്തീകരിക്കുന്നതിനുള്ള കാലതാമസം ഒഴിവാക്കുന്നതിന് സാങ്കേതികാനുമതിയ്ക്ക് അപേക്ഷിക്കുമ്പോൾ തന്നെ ടെണ്ടർ നടപടികൾ സ്വീകരിക്കുകയെന്നുള്ളതാണ്. ഇതിന് സാങ്കേതികമായി യാതൊരു തടസ്സവുമില്ല. ഇങ്ങിനെ ചെയ്യുന്നതിൽ ജില്ലാ ഓഫീസർമാരെ കുറ്റപ്പെടുത്താതിരുന്നാൽ പ്രവൃത്തികൾ നടപ്പിലാക്കുന്നതിൽ വേഗത കൈവരിക്കാനാകും.

5. വിവിധ ജില്ലാ ഓഫീസുകളിൽ നിന്നും ലഭിക്കുന്ന സാങ്കേതികാനുമതി അപേക്ഷകളിൽ ഒരു മാസത്തിനകമെങ്കിലും തീർപ്പ് കൽപ്പിക്കേണ്ടതാണ്. ഇപ്പോൾ, സാങ്കേതികാനുമതി നൽകുവാനാണെങ്കിലും എന്തെങ്കിലും അപാകതകൾ അറിയിക്കുന്നതിനാണെങ്കിലും രണ്ട് മാസത്തിലധികം സമയം എടുക്കുന്നുണ്ട്. ഒരുപക്ഷേ ആ സമയം ജനുവരി അവസാനമോ

ഫെബ്രുവരിയിലോ ആണെങ്കിൽ ബന്ധപ്പെട്ട സാമ്പത്തികവർഷത്തിനുമുൻപ് അതായത് മാർച്ച് മാസത്തിനു മുമ്പായി ടെണ്ടർ നടപടികൾ പൂർത്തിയാക്കി പ്രവൃത്തി നടത്തുവാൻ സാധിക്കുകയില്ലെന്ന് അറിയിക്കുന്നു. അതോടൊപ്പം ഒരുകാര്യം കൂടി അറിയിക്കുകയാണ് ബഡ്ജറ്റ് അല്ലോക്കേഷനും ഫണ്ട് അല്ലോക്കേഷനും കഴിഞ്ഞ് ഏപ്രിൽ, മെയ് മാസങ്ങളിൽ അയക്കുന്ന പ്രൊപോസലുകൾക്കാകട്ടെ അനുമതി ലഭിക്കുന്നത് മഴക്കാലമായ ജൂൺ ജൂലൈ മാസങ്ങളിലാണ്. അപ്പോൾ പല സ്ഥലങ്ങളും വാഹനങ്ങൾക്ക് ചെന്നു പറ്റാൻ പറ്റാത്ത അവസ്ഥയിലുമായിരിക്കും. തന്മൂലം പ്രവൃത്തി പൂർത്തീകരിക്കുവാൻ വലരെയധികം കാലതാമസമുണ്ടാകുന്നു. നിലവിലുള്ള പദ്ധതികൾ മാത്രം പരിഗണിച്ചാൽ പോലും വലിയ തോതിലുള്ള ജോലിഭാരമാണ ഡയറക്ടറേറ്റിലെ എഞ്ചിനീയറിംഗ് വിഭാഗത്തിനുള്ളത്. വരൾച്ച സംബന്ധിച്ച പ്രവൃത്തികൾ കൂടി കണക്കാക്കിയാൽ ഇപ്പോഴത്തെതിന്റെ 3 ഇരട്ടിയിലധികം ജോലിഭാരം വർദ്ധിക്കനാണ സാധ്യത. ഇക്കാരണത്താൽ വകുപ്പിനെ മൂന്ന് മേഖലകളായി തിരിച്ച് മൂന്ന് സൂപ്രണ്ടിംഗ് എഞ്ചിനിയർമാർക്ക് പ്രസ്തുത അധികാരങ്ങൾ നൽകാവുന്നതാണ്. ആയത് നടപ്പിലാകുന്നത് വരെ ജില്ലാ ഓഫീസർമാർക്കോ അതല്ലെങ്കിൽ ചുരുങ്ങിയത് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാർക്കോ 5 ലക്ഷം രൂപ വരെ അടങ്കലുള്ള പദ്ധതികൾക്ക് സാങ്കേതികാനുമതി നൽകുന്നതിനുള്ള അധികാരം ലഭ്യമാക്കണം. ഇങ്ങിനെയെങ്കിൽ 6 ജില്ലകളിലെ 5 ലക്ഷം രൂപ വരെയുള്ള പദ്ധകൾ സൂപ്രണ്ടിംഗ് എഞ്ചിനീയറുടെ പരിഗണനക്ക് വരേണ്ടതില്ല. അതുപോലെ ജില്ലാ ആഫിസുകളിലെ അസിസ്റ്റൻറ് എഞ്ചിനിയർ, അസിസ്റ്റൻറ് എക്സിക്യുട്ടീവ് എഞ്ചിനിയർ എന്നിവർക്കും പരിമിതമായ അധികാരങ്ങൾ നൽകാവുന്നതാണ്.

6. സാങ്കേതികാനുമതി അപേക്ഷകളിലുള്ള ന്യൂനതകൾ പരിഹരിക്കുന്നതിന് ടെലഫോൺ വഴിയും ഇ-മെയിൽ വഴിയും ശ്രമം നടത്തണം. സാങ്കേതികാനുമതിയ്ക്കായുള്ള അപേക്ഷകളിലും മറ്റ് അപേക്ഷകളിലും ബാലിശമായ നിർദ്ദേശങ്ങൾ നടത്താതിരിക്കാൻ ശ്രദ്ധിക്കണം. ഉദാഹരണത്തിന് കുഴൽ കിണറിന സ്ഥാന നിർണ്ണയം നടത്തിയ ജിയോളജിസ്റ്റിന്റെ റിപ്പോർട്ട് ലഭ്യമാക്കണമെന്നുള്ള നിർദ്ദേശം. ഒരിക്കൽ തൃശ്ശൂർ ജില്ലയിൽ നിന്നും സമർപ്പിച്ച അപേക്ഷയിന്മേലുള്ള ഒരു ചോദ്യം 2000 ലിറ്റർ ജല ലഭ്യതയുള്ള കുഴൽ കിണറിൽ 2 എച്ച്.പി പമ്പ് നിർദ്ദേശിക്കാനുള്ള കാരണം വ്യക്തമാക്കണമെന്നുള്ളതായിരുന്നു. മറ്റൊന്ന് റീഫണ്ടിനുള്ള അപേക്ഷയിൽ തീരുമാനമെടുക്കുന്നതിന പ്രൊഫോർമ ലഭ്യമാക്കണമെന്നുള്ളതായിരുന്നു. സ്ഥലം പരിശോധിക്കാതെ പ്രവൃത്തികളിലും അവയുടെ അളവിലും മാറ്റം വരുത്തുന്നത് അഭികാമ്യമല്ല.

7. ഈ വരൾച്ചാ കാലഘട്ടത്തിൽ ആരെയും മറ്റ് പരിശീലന പരിപാടികൾക്ക് നിയോഗിക്കരുത്

8. നിലവിൽ ഒഴിഞ്ഞുകിടക്കുന്ന തസ്തികകളിലേക്ക് എത്രയും വേഗം നിയമനം നടത്തേണ്ടതാണ്. കണ്ണൂർ ജില്ലയിൽ ആകെയുള്ള ഒരു എഞ്ചിനീയറിംഗ് തസ്തികയായ അസി: എഞ്ചിനീയറുടെയും ഒരു ജൂനിയർ ഹൈഡ്രോജിയോളജിസ്റ്റിന്റെയും ഒരു എൽ.ഡി ക്ലർക്കിന്റെയും തസ്തിക ഇപ്പോൾ ഒഴിഞ്ഞുകിടക്കുകയാണ്.

9. ഭാഗ്യവശാൽ നമ്മുടെ എല്ലാ ജില്ലാ ഓഫീസിലും ഓരോ പലിശ രഹിത എക്കൗണ്ടുകൾ ലഭ്യമാണ്. എല്ലാ ഡെപ്പോസിറ്റ് പ്രവൃത്തികളും ഈ എക്കൗണ്ടിലൂടെയാക്കിയാൽ റീഫണ്ടിനുള്ള അപേക്ഷകൾ ഡയറക്ടറേറ്റിലേക്കയക്കേണ്ടിവരില്ല. അങ്ങിനെയെങ്കിൽ ഇത് മൂലം ഡയറക്ടറേറ്റിലെ എഞ്ചിനീയറിംഗ് വിഭാഗത്തിന്റെ ജോലിഭാരത്തെ കുറക്കാൻ കഴിയും എന്ന് മാത്രമല്ല ഗുണഭോക്താക്കൾക്ക് എത്രയും വേഗം റീഫണ്ട്

ലഭ്യമാക്കുന്നതിനും എല്ലാ റവന്യൂ കളക്ഷനും റസീപ്റ്റ് ഹെഡിൽ ചേർക്കുവാനും കഴിയും.

10. അത്യാവശ്യമെങ്കിൽ വാഹനങ്ങൾ വാടകക്കെടുക്കുവാൻ അനുമതി ലഭ്യമാക്കണം

11. ഡെലിഗേഷൻ ഓഫ് പവേഴ്സ് എത്രയും വേഗം പരിഷ്കരിക്കേണ്ടതാണ്. റി ഓർഗനൈസേഷൻ വരുന്നതിന മുൻപ് വാഹനങ്ങൾ റിപ്പയർ ചെയ്യുന്നതിന അസി: എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർമാർക്കും ഹൈഡ്രോ ജിയോളജിസ്റ്റുമാർക്കും അധികാരം ഉണ്ടായിരുന്നെങ്കിലും ഇപ്പോൾ ജില്ലാ ഓഫീസർമാർക്ക് ഇതിനുള്ള അധികാരം നൽകിയിട്ടില്ല.

12. ഫയലുകൾ നഷ്ടപ്പെടുകയോ പൂഴ്ത്തിവെക്കുകയോ ചെയ്യുന്നത് ഇന്ന് ഡയറക്ടറേറ്റിലെ ഒരു സ്ഥിരം ഏർപ്പാടായി മാറിയിരിക്കുകയാണ്. എന്നാൽ ഇപ്രകാരം ചെയ്യുന്നവർക്കെതിരെ യാതൊരു നടപടിയും ഇല്ലാത്തതാണ് ഇത് തുടരുന്നതിനും വർദ്ധിക്കുന്നതിനും കാരണമായിട്ടുള്ളത്. ഇതിനൊരു പരിഹാരം കണ്ടെത്തേണ്ടതാണ്.

13. എസ്.സി.പി. പദ്ധതി, വരൾച്ച ദുരിതാശ്വാസ പദ്ധതി എന്നിവയുടെ ബിൽ തുകയിൽ നിന്ന് നിയമാനുസൃത കിഴിവുകൾ നടത്തി കരാറുകാരന് തുക നൽകേണ്ടത് ബന്ധപ്പെട്ട ജില്ലാ ആഫീസർമാരാണെന്നിരിക്കെ ആയതിന്റെ ബില്ലും വൗച്ചറുകളും ബിൽ തുക അനുവദിക്കുന്നതിനായി ഹെഡ് ആഫീസിലേക്ക് ആവശ്യപ്പെടുന്നത് ശരിയായ നടപടിയല്ല. തുക വിനിയോഗം പരിശോധിക്കുന്നതിനായി അക്കൗണ്ടന്റ് ജനറലിന്റെ ഓഡിറ്റും, ഇന്റേണൽ ഓഡിറ്റും ജില്ലാ ആഫിസുകളിൽ നടത്താറുള്ളതാണല്ലോ. ആയതിനാൽ ജില്ലാ ആഫിസർമാർ ആവശ്യപ്പെടുന്ന മുറക്ക് മറ്റു ഫണ്ടുകൾ ബന്ധപ്പെട്ട കണക്കുശീർഷകങ്ങളിൽ നൽകുന്നതുപോലെ നൽകേണ്ടതാണ്.

DISTRICT OFFICER
GROUND WATER DEPARTMENT
2nd FLOOR, ADDITIONAL CIVIL STATION
KANNUR - 670 002

APPENDIX-XI

From

Balasubrahmanian Nampoothiri
Foreman
O/o. The Asst. Executive Engineer
Central Workshop and Stores
Ground Water Department
Kollam – 3

To

The Principal Secretary to Govt.
Water Resource (G.W) Department
Govt. Secretariat,
Thiruvananthapuram

(Through Proper Channel)

Respected Sir

Sub:- Estt :- Ground Water Dept. – Promotion of Foreman as Assistant Engineer – Special Rules – amendment - reg

Ref :- 1. G.O(P) No. 480/89/Fin dt. 1.11.1989
2. G.O(P) No. 32/93/Ir.D dt. 30.7.1993
3. G.O (P) No. 271/2007/LSGD dt. 27.11.2007

1. I am submitting the following few lines for your kind consideration and early favourable action.
2. I am working as Foreman in the office of the Assistant Executive Engineer, Central workshop & Stores, Ground water Dept. Kollam I have joined Ground water Dept. on 16.7.2003 as advised by the Kerala Public Service Commission. I have Diploma in Mechanical Engineering and Associate Membership (AMIE(I)) (Mech) acquired during 2004. AMIE in equivalent to B.Tech (Mech Engg)
3. At the very inception of the Ground Water Dept. the post of Senior Driller & Store in Charge were equivalent and considered as feeder category to the post of Asst. Engineer before the issue of 1988 Pay Revision order. The minimum educational qualification of the both posts is still prescribed as Three year Diploma in Mechanical Engineering for direct recruitment. Subsequently the post of Foreman has also been introduced in the Dept. and treated it as equivalent to the posts of Store in Charge and Senior Driller.
4. Though the nature of work to be discharged by those appointed to the above posts are different, those persons are expected to discharge the

duties and functions based on Mechanical Engineering on the reason that their basic qualification was same. Therefore these persons were considered equally for the promotion post of Asst. Engineer (formerly Jr. Drilling Engineer). This is evident from GO(MS) No. 166/76/AD dt. 7.5.76 and subsequent orders issued in this regard.

5. When the Pay Revision orders were issued as per G.O referred to as first above the scale of pay of Senior Driller was revised as Rs. 1220-2150 from Rs. 825-1430. Whereas the scale of pay of Foreman and Store in Charge were revised as Rs.1050-1830 from Rs. 825-1430. Since the member of employees working in those posts were few and those who were working then were not aggrieved due to their prolonged service, this anomaly was not taken up with the Govt.
6. The above disparity in scale of pay very much affected the promotion scope of youngsters inducted to the Dept. through Direct recruitment. The scope of Foreman/Store in Charge for promotion as Asst. Engineer is remote when compared with Sr. Driller.
7. It is submitted that the yard stick for inclusion of a post as feeder category is based on various factors such as educational qualification, experience, efficiency to discharge the duties etc. It can be seen that the functions of Foreman working in Central Workshop and Stores are onerous when compared to that of a Senior Driller. The functions of a Senior Driller is confined to the supervision of particular drilling works which are authorized to do in a District office in District level. Whereas the functions of Foreman are supervision of maintenance and repair work of various vehicles and machineries in the only Central Workshop and Stores, which are sent from all district offices of the Dept., supervision of specified works in sites as authorized by Directorate, allotment of work among the Central work shop staff and casual labourers numbering about 24.
8. The functions of Store in Charge are also on a par with the duties of a Foreman. He has to check all machineries/ equipment received in stores. The upkeep of materials, its accounting and distribution to all district offices supervision of public auction etc are vested with him. The duties and functions assigned to the Master Driller is same as that of Senior Driller. It is only a promotion post of Senior Drillers who are ITI Certificate holders. The persons holding posts of Sr. Driller, Foreman and Store in Charge having Degree/Diploma in Mech. Engg. were

considered as feeder category for promotion as Asst. Engineer before issuance of the Spl. Rules referred to as second above.

9. In Ground Water Dept. the Foreman /Store in Charge have no promotion chance as in other Engineering Depts. like PWD, Irrigation, LSG Dept., etc. In ground water department itself Draftsman Grade I is considered as feeder category to the post of Asst. Engineer in Hydrology wing.

10. In the Spl. Rules of the Dept. itself ratio promotion is prescribed for posts of Asst. Engineer and above to Degree/Diploma/Certificate Holders. But there is no ratio promotion prescribed for Foreman/Store in Charge.

11. When the Spl. Rules of the Dept. was issued as per G.O referred to as second above the post of Asst. Engineer in Central workshop and stores was also earmarked for getting more promotion chances to the Drillers. This was really an injustice shown to the Foreman/Store in Charge of the Ground Water Dept. Therefore it is requested that this may be corrected by including the Foreman/Store in Charge as feeder category to the post of Asst. Engineer along with the Master Drillers. The Director, Ground water Dept. may be requested to submit suitable proposals for amending the Spl. Rules of the state service (Engineering Branch) of the Ground Water Dept. Also one post of Asst. Engineer may be earmarked for promotion of Foreman/Store in Charge having Degree or equivalent qualification in Mechanical Engineering.

12. In all Engineering Department like PWD, Irrigation, LSGD etc there is provision for promotion of Degree Holders in Service to the post of Asst. Engineers. A certain percentage of posts are earmarked for their promotions. But this provision is not found in the Spl. Rules of the Ground Water Dept. referred to as second above. This is really a discrimination shown to the Degree holders of the Ground Water Dept. working in subordinate service of that Dept.

13. Kind attention in invited to the Spl. Rules for the Kerala Local Self Engineering Services, 2007 issued as per G.O referred to as third above. In that special Rules in Note-3 below Rule 3, Method of appointment is provided as follows :-

"Note 3 – Out of the posts for direct recruitment, 10% shall be filled by direct recruitment from among members in the Kerala Local Self Government Engineering Subordinate Service".

By the above provision, out of 60% cadre strength of Asst. Engineer earmarked for direct recruitment, 10% is earmarked for degree holders in the LSG subordinate services. No such provision is found in the Spl. Rules of the state service of Kerala Ground Water Department vide G.O referred to as second above. It is therefore requested that a similar provision as pointed out above may be included under category 4- Asst. Engineer by amending the said Spl. Rules of Ground Water Department.

14. It is requested that among the 17 posts of Asst. Engineer in ground water Dept., 2 posts of Asst. Engineer may be set apart for direct recruitment/appt. by transfer from Degree holders in Mechanical Engineering in subordinate service of Ground Water Dept.

15. I may conclude with the following prayers:-

(1) to direct the Director, Ground Water Dept. for submitting proposals for amending Spl. Rules referred to as second above for including Foreman/Store in Charge along with Master Drillers for promotion (appointment by transfer) to the post of Assistant Engineer.

(2) to direct the Director, Ground Water Dept. to submit proposals for including in the Spl. Rules referred to as second above, a provision for earmarking two posts of Asst. Engineers for direct recruitment /appointment by transfer from Degree Holders in Mechanical Engineering in the subordinate service of Ground Water Dept.

Expecting early favourable action

Yours faithfully,

Kollam

(Balasubrahmanian Nampoothiri)
Foreman,
Central Workshop and Stores
Ground Water Department,
Kollam-3

Enclosures :-

As referred to above

FINANCIAL IMPLICATIONS FOR THE CREATION OF POSTS RECOMMENDED IN THE GROUND WATER DEPARTMENT (AS ON 30.06.2013) [See para 3.29]

Sl. No.	Designation	Basic pay Rs	Dearness Allowance as on 30.06.13 Rs.	House Rent Allow-ance Rs.	City Compe n-satory Allow-ance Rs.	Total salary per month Rs.	Total Salary per post per year Rs.	No. of posts	Total Amount required for salary per year Rs.
1	Senior Superintendent	18740	9932	840	350	29862	358344	3	1075032
2	Clerk	9940	5268	560	250	16018	192216	2	384432
	TOTAL	**28680**	**15200**	**1400**	**600**	**45880**	**550560**		**1459464**