

KERALA WATER AUTHORITY



ADMINISTRATIVE REPORT FOR THE YEAR 2016-17

JALA BHAVAN, THIRUVANANTHAPURAM-695033

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CHAPTER -I

KERALA WATER AUTHORITY - A PROFILE

- 1.1 Kerala Water Authority was established by the Government of Kerala on 1st of April, 1984 under the Kerala Water and Waste Water Ordinance, 1984 to provide for the development and regulation of water supply and waste water collection and disposal in the state of Kerala and for matters connected therewith. The ordinance was replaced by the Kerala Water Supply and Sewerage Act, 1986 (Act 14 of 1986)
- 1.2 The Authority was established by vesting the properties and assets of the erstwhile Public Health Engineering Department under section 16 of the Act and the assets, rights and liabilities of the Local Bodies and the Kerala State Rural Development Board in so far as they pertain to the execution of water supply and sewerage schemes under section 18 of the Act.
- 1.3 The main functions of the Authority are
 - (i) Preparation, execution, promotion, maintenance and financing of the schemes for the supply of water and disposal of waste water.
 - (ii) Planning for the state's water supply and sewerage requirements.
 - (iii) Preparation of state plans for water supply and collection and disposal of wastewater on the direction of the Government.
 - (iv) Establishment of state standards for water supply and waste water services.
 - (v) Carrying out applied research for efficient discharge of the functions of the Authority.
 - (vi) Making provisions for the supply of wholesome water and efficient sewerage services to the people in the state.

CHAPTER -II

CONSTITUTION

- 2.1 The Authority consists of the following members.
- (i) Chairman - Appointed by the Government.
 - (ii) Managing Director - Appointed by the Government.
 - (iii) Secretary to Government, Water Resources Department, Government of Kerala.
 - (iv) Secretary to Government, Finance Department, Government of Kerala.
 - (v) Secretary to Government, Local Administration Department, Government of Kerala.
 - (vi) Secretary to Government, Rural Development Department, Government of Kerala.
 - (vii) Two members representing the Local Bodies in the state, appointed by Government.
 - (viii) Two members appointed by the Government, one of whom shall be a member belonging to the schedule caste / schedule tribe.
 - (ix) A Technical Member, appointed by the Government.
 - (x) An Accounts Member, appointed by the Government.

Members of the Authority

	DESIGNATION	PERIOD (01/04/2016-31/03/2017)
1	Chairman KWA & Secretary, Water Resources Department	Sri. V. J. Kurian IAS 01/04/2016 - 22/03/2017 Smt. Tinku Biswal IAS /from 23/03/2017
2	Secretary to Government Finance (Expenditure) (Ex-officio)	Sri. B. Sreenivas IAS 01/04/2016 - 25/08/2016 Smt. Kamala Vardhana Rao IAS From 26/08/2016
3	Principal Secretary (LSGD) (Ex-officio)	Sri. James Varghese IAS 01/04/2016 - 21/07/2016 Sri. T K Jose IAS from 21/07/2016
4	Executive Director (KRWSA) (Ex-officio)	Smt. Tinku Biswal IAS
5	Managing Director, Kerala Water Authority	Sri. Ajith Patil IAS 01/04/2016 - 05/12/2016 Smt. A Shainamol IAS from 05/12/2016
6	Technical Member, Kerala Water Authority	Sri. T. Raveendran
7	Accounts Member, Kerala Water Authority	Vacant Sri. V.S. Pradeep, FM & CAO (Accounts Member in charge, special invitee)
8	Non-Official Members	Sri. Chacko Varghese 01/04/2016 - 29/06/2016 Sri. Kunju Koshy Paul 01/04/2016 - 29/06/2016 Sri. E K Chellappan 01/04/2016 - 29/06/2016 Sri. John Thomas 01/04/2016 - 29/06/2016

CHAPTER -III**ORGANIZATIONAL STRUCTURE**

- 3.1. Kerala Water Authority has its Head Office at JalaBhavan, Thiruvananthapuram. The Managing Director heads the head office. There are three Regional Offices headed by Chief Engineers at Thiruvananthapuram, Kochi, Kozhikode and a Chief Engineer's office for JICA in Trivandrum. PPD & WASCON, the consultancy wing of Kerala Water Authority is headed by a Chief Engineer.

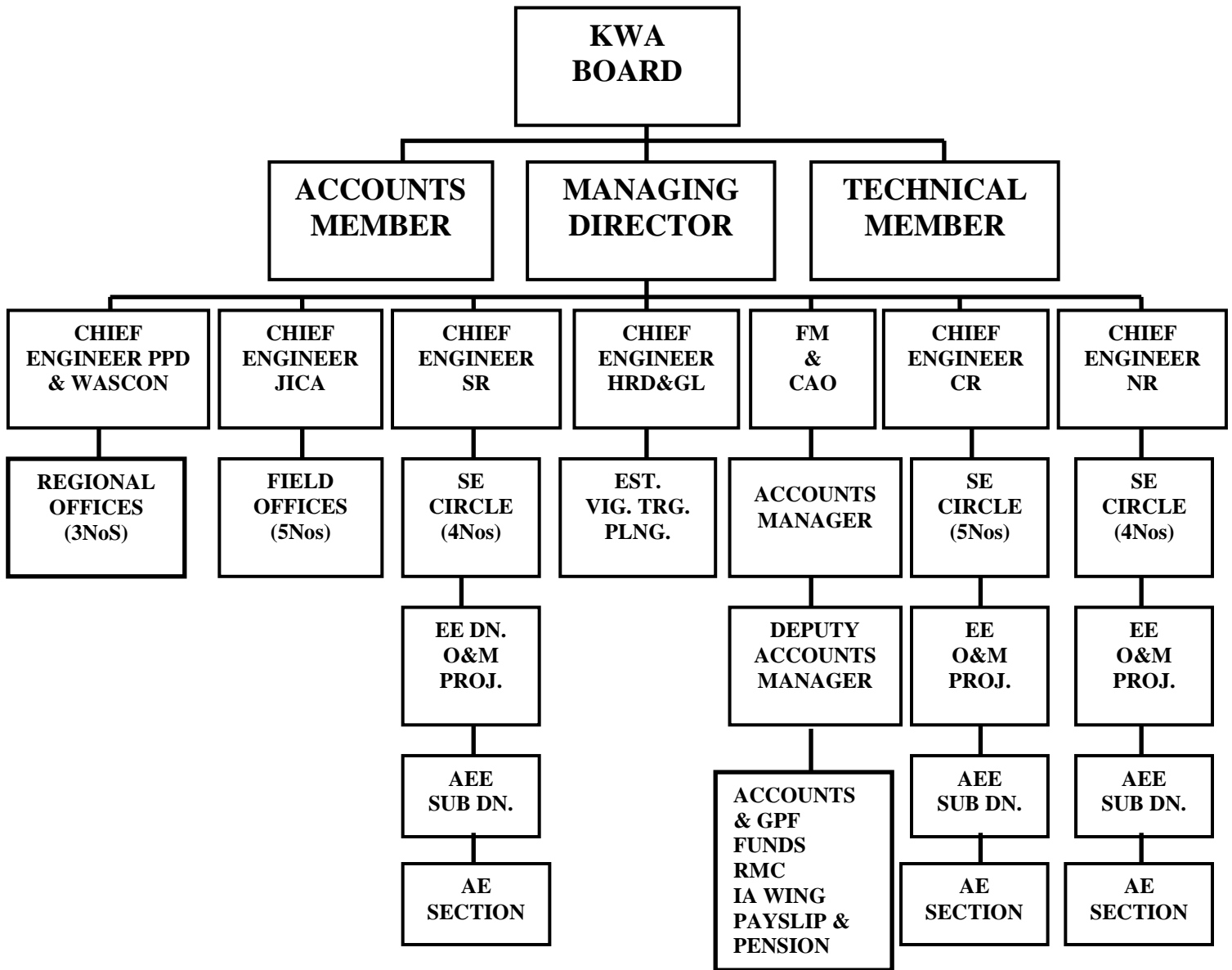
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- 3.2. There are 17 Circle Offices, 49 Division Offices, 103 Sub-Division Offices and 244 Section Offices under the regional offices .The Circle offices are headed by Superintending Engineers, Division Offices by Executive Engineers, Sub Division Offices by Assistant Executive Engineers and Section Offices by Assistant Engineers. There are separate offices for execution of projects, operation and maintenance and quality control functions. The JICA assisted KWSP has offices at the place of each of the five schemes. In addition there is a State Referral Institute at Kochi headed by a Director in the rank of a Superintending Engineer.

3.3 Organizational Structure



3.3. Major units of KWA

3.3.1. Division offices.

The major activities (operation, management, and execution of Water supply & sewerage schemes) of Kerala Water Authority are centered on the Divisions.

The various Divisions and their functions are:

i. Water Supply / P.H. Divisions.

These divisions are dealing with the operation & maintenance of water supply schemes which are run by Kerala Water Authority. Execution of deposit works of Local Bodies and other agencies are also carried out by these Divisions. Revenue collection of KWA is also done by these Divisions.

ii. Project Divisions.

These divisions are constituted exclusively for the execution of new projects of drinking water and sewerage schemes.

iii Quality Control Divisions.

The Quality Control Divisions under State Referral Institute are engaged in water quality surveillance / monitoring and act as a referral agency to guide the public as well as the Government in all cases of drinking water quality problems.

3.3.2. JICA Assisted Kerala Water Supply Project

The JICA Assisted Kerala Water Supply Project headed by a Chief Engineer is for implementation of five major water supply schemes assisted by Japan International Co-operation Agency. Its function is to augment and rehabilitate water supply systems of two urban regions viz. Thiruvananthapuram and Kozhikode and to construct water supply systems for three rural regions viz. Meenad, Cherthala and Pattuvam

3.3.3. WASCON & PPD

Under the control of a Chief Engineer, WASCON & PPD the consultancy wing of KWA and is authorised to undertake consultancy and construction works in Civil Engineering, provide services to LSGs while taking up infrastructure projects in water and sanitation sector.

3.3.4. Training Centre.

A centralized training centre headed by an Executive Engineer is functioning at Trivandrum with ample training facilities. The unit carries out in-house

trainings, workshops, refresher courses etc. Training Centre also facilitates the deputation of officers for higher studies and external training

3.3.5. Vigilance Wing

There is a Vigilance Wing headed by a Deputy Chief Engineer, and consisting of one Executive Engineer and two Asst. Executive Engineers functioning under the Technical Member. They are entrusted with the task of detailed enquiry of allegations against officers and on the execution of different works and other enquiries entrusted to it in respect of any matter affecting the Authority. The report submitted will be scrutinized by a committee headed by the Technical Member and based on the recommendation, further action would be taken in every case.

3.3.6. Internal Audit Wing

Kerala Water Authority is having an Internal Audit Wing with a section at headquarters and two teams headed by Internal Auditors. These audit teams are deployed for the yearly audit of the accounts and other records of the Division Offices. They are also responsible for the follow up action with regard to the audit findings of the Accountant General, Stock Verification Reports, Internal Audit Reports, Special Audit Reports, etc. They report directly to the Accounts Member.

3.3.7. Stock Verification Unit

There are two Stock Verification Sub Divisions functioning under Accounts Member for the physical verification of materials stored in different stores. The Sub Division situated in Trivandrum has jurisdiction upto Ernakulam and the second one situated in Kozhikode verifies the stores beyond Ernakulam.

CHAPTER- IV SCHEMES UNDER EXECUTION

Sewerage

The coverage of sewerage in the state is negligible. Thiruvananthapuram city has 37% coverage with about 90,000 connections. Ernakulam has a small system with 1000 connections. Two projects for Kollam and Kozhikkode under KSUDP are in progress.

Waste water collection and disposal are of equal importance to that of protected water supply in maintaining public health and much attention is needed in this sector.

Jawaharlal Nehru National Urban Renewal Mission (JNNURM) Projects

Government had accorded Administrative Sanction for four projects for Rs.699.70 crores, one each in water supply and sewerage sector for Thiruvananthapuram and Kochi Corporations of Kerala under JNNURM. In order to execute the projects a Tri-partite agreement between the respective Corporation, Department of LSGD and Kerala Water Authority (KWA) was signed on 01/11/07. The implementation of the scheme is done by KWA on behalf of the respective Urban Local Bodies (ULB), for which the funds will be released to ULBs according to requirement. A city level Technical Advisory Group was formed for both Corporations.

Sl.No.	Name of City and Scheme	AS in Crores of Rupees	Project Components
Thiruvananthapuram (Capital City)			
Funding: Central: 80%; State: 10%; ULB: 10%			
1	JNNURM-Water Supply Scheme to Trivandrum	87.16	Distribution Lines, Rehabilitation of distribution system
2	JNNURM-Sewerage Scheme to Trivandrum	215.41	Sewage treatment plant, pump house and sewer mains

3	Rehabilitation of Sewerage system Phase II	121.15	Rehabilitation of main pumping stations, extension of pumping main, replacement of pumpset, providing 4 MLD STP at Govt. Medical College.
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Kochi (City with One million plus population)

Funding: Central: 50%; State: 30%; ULB: 20%

1	JNNURM – Water Supply Scheme to Kochi (Part-I)	201.17	Intake well, WTP, Sump, Tank, Transmission mains
2	JNNURM – Sewerage-Scheme to Kochi city – Central Zone (Part-I)	74.81	Sewage Treatment Plant, Pump house and sewer mains

The various packages of the above works are in progress.

Guruvayur Sewerage Scheme

The project is to provide an effective drainage system for the full coverage of the thick inhabitant areas under Guruvayur Municipality. The main objective of the project is to improve the environmental conditions now prevailing in the area. The general hygiene in the area would keep up, improving health. Implementation of the project will promote the sanitary and health status of the inhabitants in the project areas preventing incidence of waterborne diseases.

Dry and wet contaminants including sewage from hotels, houses and commercial complexes at Guruvayur area collected and conveying through various size of PVC sewer lines to sewage treatment plant at Chakkumkandam and sewage treated as manure. This scheme includes the following components.

1. 3 MLD Sewage Treatment Plant.
2. Laying of PVC Sewer Lines and Manholes.
3. Repairs and maintenance of collection well.
4. Supply, erection and commissioning of pump sets.
5. Power line extensions to pumping stations.
6. Supply and installation of Diesel Generator.

7. Procurement of various types of Sewer Clearing Equipment.
8. Interconnection of pumping station, pumping main and sewer lines.
9. Computerized monitoring of sewer network

The work is in the final stages and about 85% of the work has been completed.

Trivandrum Sewerage Scheme

The **Trivandrum** Sewerage Scheme was formulated during the year 1931 based on the principle of separate system, dividing the area into different blocks topographically for effective drainage of wastewater. The scheme area was divided into seven blocks viz. A, B, C, D, E, F and G, facilitating efficiency of Sewerage system by laying Main sewers, collecting sewers, branch sewers, etc., in combination with pumping stations and pumping mains up to the disposal point. The first block 'Block-A' was commissioned in 1945. Later, Block B was commissioned in 1965 and Block C in 1970. Block D and E were partially commissioned in 1994 and 1990 respectively. Sewage farming was the treatment method adopted that time, located at Muttathara. Thiruvananthapuram Sewerage Scheme [TSS] covers partially the old Corporation area, having an extent of 74.93 sqkm with 50 wards. Presently Sewerage facility is available fully or partially in blocks A to E.

Sewage Treatment Plant

During the year 2013, a Sewage Treatment Plant was commissioned with a total capacity of 107 MLD. Sewage from 10 pumping stations located in the various blocks are fed to the STP. Presently the plant is utilized for the commissioned areas of blocks A to E.

Present works

Presently works are taken up under Amruth and State Plan for extending the sewerage facility to the non-covered areas and also for rehabilitation of existing schemes. Works amounting to Rs. 60 crores are in progress.

SCHEMES UNDER EXECUTION

No. of Urban Schemes under execution during 2016-17 :36 (Excluding Deposit work)

No. of Rural schemes under execution during 2016-17 :244 (Excluding Deposit work)

SCHEMES COMPLETED DURING 2016-17

Sl. No.	Name of Scheme	Name of District	Category	AS Amount (Rs.in lakhs)	Population benefitted
1	WSS to Kollam Corporation - Shortage of water in Sasthamkotta Lake - Alterante measures for drawing water from KIP Canal	Kollam	DRW	120.00	No additional beneficiaries
2	JICA Assisted Water Supply Project - Supplying water to ESIC Medical College, Parappaally	Kollam	Deposit Work	319.04	No additional beneficiaries
3	WSS to Pandalam Panchayath	Pathanamthitta	NABARD	1372.27	41594
4	RWSS to Veliyannoor & Uzhavoor Pts(2013-14)	Kottayam	NRDWP	400.00	15332
5	Kaduthuruthy and adjoining villages - Veliyannoor area	Kottayam	NRDWP	190.00	6306
6	Kaduthuruthy and adjoining villages - Njeeshoor area	Kottayam	NRDWP	300.00	11018
7	CARWSS to Mannar, Kurattissery, Chennithala & Thripperumthura villages	Alappuzha	Rural	602.90	74100
8	NRDWP - Rural WSS to quality affected habitations in KS Mangalam village in Kottayam District	Ernakulam	NRDWP	975.00	21100
9	NRDWP - ARWSS Manimalakkunnu SC Colony Drinking Water Supply Scheme in Thirumarady Panchayath	Ernakulam	NRDWP (District Collector, Ernakulam)	40.00	1000
10	NRDWP - Rural WSS to quality affected habitations of Chempu village - supplying and laying distribution lines in the uncovered area in Chempu panchayath	Ernakulam	NRDWP	350.00	21700
11	WSS to Manalur, Karamukku and adjoining village	Thrissur	RWSS	541.00	39811
12	WSS to Anakara, Pattithara & Kappur Phase I	Palakkad	NRDWP	1500.00	62382
13	WSS to Munnad Bedadka and Kuttikole villages	Kannur	ARP	700.00	25700

14	LAC ADF of Sri.Krishnan MLA, in Payyannur LAC water supply scheme to Puthur in Karivellur Paralam Grama Panchayath in Kannur District construction of 4m dia intake well cum pumphouse, construction of 20000 ltr capacity OH Tank – laying pumping main and distribution system – supply, erection and commissioning of 10 HP pump set 2 nos.	Kannur	LAC ADF	40.00	350
15	CWSS to Moorkanad & Adjoining villages PH IV Koottilangadi Village	Malapuram	ARP/NRDWP	600.00	44500
16	CWSS to Moorkanad & Adjoining villages PH IV Koottilangadi Village-Distribution	Malapuram	ARP/NRDWP	675.00	
17	CWSS to Moorkanad & Adjoining villages PH II Kuruva Village	Malapuram	ARP/NRDWP	625.00	81204
18	CWSS to Moorkanad & Adjoining villages PH I Moorkkanad Village-High level Zone-Part II	Malapuram	ARP/NRDWP	193.00	
19	CARWSS to Mannar, Kurattissery, Chennithala & Thripperumthura villages-Earmarked funding	Malapuram	ARP/NRDWP	95.00	61000
20	ARWSS to Moorkanad & Adjoining villages Phase III	Malapuram	ARP/NRDWP	630.00	
21	NRDWP-WSS to Cheekode and Adjoining villages	Malapuram	ARP/NRDWP	2200.00	474300
22	Aug. Of WS to Kolachery-Enhancement of coverage	Kannur	ARP/NRDWP	900.00	184374
23	NRDWP - RWSS to quality affected habitations in Thalayazham in Kottayam	Kottayam	ARP/NRDWP	860.00	22450
24	NRDWP-WSS to Vokady and adjoining village Balance work	Kasargode	ARP/NRDWP	533.00	20821
25	WSS to Amalapuram and Thattupara in Ayyampuzha Panchayat	Ernakulam	ARP/NRDWP	262.00	9286
26	ARWSS to Kaviyoor-Kunnamthanam Phase I	Pathanamthitta	ARP/NRDWP	944.54	37659
	Total			15528.71	1255987

District wise & category wise number of ongoing water supply schemes during 2017-18 (as on 31.03.2017)																				
Name of District	Number of ongoing Water Supply Scheme																			
	Rural Water Supply Scheme											Urban Water Supply Scheme								
	NRDWP	Technology Mission	TRP Schemes funded by GoI	State Plan	SAARK	NABARD	Externally Assisted (JICA)	Green Book	KIIFB	Earmarked Quality	Deposit works of KWA (For schemes of local bodies/ other agencies)	Externally Assisted (JICA)	JNNURM	State Plan	SAARK	Green Book	KIIFB	UIDSSMT	Total	
Thiruvananthapuram	13		Completed	6	1	7	1	1		57	1	1	2	1					91	
Kollam	6					1	1		1		19			1			1			30
Pathanamthitta	12				1		4		2	1	143						1			164
Alappuzha	10	1					1		1		59					1				73
Kottayam	28	1			2	1	3				22						1			58
Idukki	22						3				79						1			105
Ernakulam	8						4			2	105		1	2	1					123
Thrissur	6				1		3				149				1		1	1		162
Palakkad	16						2			3	18					1	1	1		42
Malappuram	23						3			1	120			2			2			151
Kozhikode	11						2	1			73	1		1			2			91
Wayanad	4						3			1	2	18							1	29
Kannur	5				1		2			2	96				2		1	2		111
Kasargode	5					1	1				22						1			30
Total	169	2		11	3	39	3	4	11	2	980	2	2	8	5	2	12	5	1260	

**District wise and category wise number of Water Supply Schemes in
Operation as on 31.03.2017**

Sl. No.	Name of District	No. of Urban Water Supply Schemes	Rural Water Supply Schemes		Total
			Multi Panchayath	Single Panchayath	
1	Thiruvananthapuram	11	30	54	95
2	Kollam	4	8	61	73
3	Pathanamthitta	4	8	59	71
4	Alappuzha	6	3	54	63
5	Kottayam	4	9	66	79
6	Idukki	2	4	77	83
7	Ernakulam	8	21	69	98
8	Thrissur	10	25	84	119
9	Palakkad	6	12	39	57
10	Malappuram	9	16	30	55
11	Kozhikode	12	3	70	85
12	Wayanad	1	6	20	27
13	Kannur	6	2	82	90
14	Kasargode	1	6	71	78
	Total	84	153	836	1073

NABARD On-going Schemes

SL. No.	Year of sanction (Tranche No.)	District	Division	Name of Scheme	AS amount (Rs.in lakhs)
1	2008(RIDF XIV)	Thiruvananthapuram	Proj. Division, Thiruvananthapuram	RDWSS to Pallichal Balaramapuram and Vilavoorkkal Pt(Partially)	3862.49
2		Thiruvananthapuram	Proj. Division, Thiruvananthapuram	Augmentation of existing RDWSS to Kunthukal Pt(Partially)	1684.71
3		Ernakulam	Proj. Division, Perumbavoor	RDWSS to Karukutti & Mukkannur Pt(Partially)	1931.00
4		Thrissur	Proj. Division, Nattika	RDWSS to Cheruthuruthy and Nedumpura Pt(Partially)	814.00
5		Kozhikode	Proj. Division, Kozhikode	RDWSS to Nadapuram village	1189.20
6	2011(RIDF XVII)	Thrissur	Proj. Division, Nattika	WSS to Kattur, Padiyur & Poomangalam village	2789.00
7		Wayanad	Proj. Division, Kozhikode	WSS in Mananthaady, Edavaka & Nalloomadu villages	2368.00
8	2012(RIDF XVII) Endo	Kasaragod	Proj. Division, Kannur	WSS to various place of Muliya Pt	204.26
9		Kannur	Proj. Division, Kannur	WSS to Endosulfan area at Kallam grama panchayath in Hosdurg Taluk	600.00
10		Kannur	Proj. Division, Kannur	WSS to Endosulfan area at Panathady Grama panchayath in Hosdurg Taluk improving existing RWSS to Gandhipuram	339.00
11	2013(RIDF XVIII)	Thiruvananthapuram	Proj. Division, Thiruvananthapuram	RWSS to Kalliyur, Vengannur villages Vizhinjam Kovalam Tourist Area Rural component Phase I	2223.00
12		Kollam	Proj. Division, Kollam	WSS to Vilakkudy Vettikavala & Melila panchayath in Kollam Dist Phase I	2415.00
13		Kottayam	Proj. Division, Kottayam	CWSS to Major & Kanakkary grama panchayaths in Kottayam District	2622.00
14		Malappuram	Proj. Division, Malappuram	WSS to Othukkungal and Ponmala	3440.00

15		Wayanad	Proj. Division, Kozhikode	WSS to Moopanad, Mappady (Ist phase) and Vythnri panchayath in Wayanad Dist.(Well RW,CW,Pumping Main, Treatment Plant, Reservoirs and pumpsets) with pumpsets	3260.00
16		Wayanad	Proj. Division, Kozhikode	CWSS to Sulthan Bathery,Noolpzha and Muttill panchayath in Wayanad Dist. Phase I Well, TP, TW, CW pumping main Balance Reservoir Gravity main)	4220.00
17		Kasaragod	PH. Division, Kasaragod	Providing water supply to Endosulfan area at various places in Muliyar grama panchayath Part II	93.00
18		Kasaragod	PH. Division, Kasaragod	Providing water supply to Endosulfan area at Peradukkam Kolatinkal in Muliyar grama panchayath	16.00
19		Kasaragod	PH. Division, Kasaragod	WSS to Chengala,Muliyar, Madhur & Mogralputhur Pts in Kasaragod panchayath PH II	2350.00
20	2012(RIDF XVIII)	Kasaragod	PH. Division, Kasaragod	WSS to Kayyur, Cheemeni Pt	1000.00
21	2014(RIDF XIX)	Thiruvananthapuram	Proj. Division, Thiruvananthapuram	CWSS to Panavoor, Pullampara & Vembayam pts distribution network	571.00
22		Pathanamthitta	Proj. Division, Adoor	CWSS to Seethathode Pt & Nilakkal Plappally area in Perunad Pt	909.00
23		Pathanamthitta	Proj. Division, Adoor	CRWSS to Mallappady Anicadu & Kottangal (P) Pts Phase I	798.00
24		Alappuzha	Proj. Division, Alappuzha	Cherthala - Distribution network	6055.40
25		Idukki	Proj. Division, Kattappana	WSS to Edavatty Panchayath	1700.00
26		Ernakulam	Proj. Division, Perumbavoor	Coverage of NC/PC habitation - providing WS to uncovered habitations in Parakadavu Pt	610.00
27		Thrissur	Proj. Division, Nattika	Combined AUWSS to Pudukkad CT and ARWSS to Parapukkara and adjoining villages Supply erection and commissioning of micro filter and pumping main /gravity main	957.00

28		Malappuram	Proj. Division, Malappuram	WSS to Cheekkode and adj pts providing balance distribution network	1254.00
29	2015(RIDF XX)	Thiruvananthapuram	Proj. Division, Thiruvananthapuram	RWSS to Edakode, Keezhethonnackal, Melethonnackal, Veyiloor, Pallippuram panchayaths	735.00
30		Thiruvananthapuram	Proj. Division, Thiruvananthapuram	RWSS to Kottapani in Edava Grama Panchayath	62.95
31		Pathanamthitta	Proj. Division, Adoor	WSS for proposed Konni Medical College in Pathanamthitta Dist	1398.00
32		Kottayam	Proj. Division, Kottayam	RWSS to Vadakkemalai Parathodu Grama Panchayath Laying Distribution system	53.00
33		Kottayam	Proj. Division, Kottayam	RWSS to Vadakkemalai Parathodu Grama Panchayath Laying pumping main, Erection of pumpset and power allocation	39.90
34		Palakkad	Proj. Division, Palakkad	WSS to Koppam and Vilayur Pt. in Pattambi taluk	2000.00
35		Palakkad	Proj. Division, Palakkad	WSS to Ongallur and Vallapuzha	1500.00
36		Kozhikode	Proj. Division, Kozhikode	RWSS to Kallanode in Koorachundu Panchayath	50.00
37		Kannur	Proj. Division, Kannur	RWSS to Payyavur and Eruvessi Pt. in Thaliparamba taluk Phase I	3500.00
38	2016(RIDF XXII)	Thiruvananthapuram	Proj. Division, Thiruvananthapuram	CWSS to Pallichal, Balaramapuram and Vilavoorkal Pts - balance work	1024.00
39		Idukki	Proj. Division, Kattappana	WSS to Valliyamattom and Alakkode villages	558.63
40		Idukki	Proj. Division, Kattappana	WSS to Karimannoor, Udumbannoor, Kodukulam and Vannapuram pts	1200.00
41		Ernakulam	Proj. Division, Perumbavoor	RWSS to Arakuzha & Palakuzha pts	1350.00
42		Ernakulam	Proj. Division, Perumbavoor	Mini WSS to Inchathotty in Kuttampuzha Pt	92.00
43		Kannur	Proj. Division, Kannur	Mini WSS to Pattuvam and adjoining villages - balance works in Phase I	1495.00

KERALA WATER AUTHORITY - AMRUTH PROJECTS			
Sl. No.	Name of Work	AS Amount (in Cr)	
		SAAP 15-16	SAAP 16-17
THIRUVANANTHAPURAM			
WATER SUPPLY SECTOR			
1	Improvement of water supply scheme - Construction of 75 MLD Water Treatment Plant at Aruvikkara	45.00	25.00
2	Construction of smart office in Thiruvananthapuram - Kowdiar, Pongumoodu, Vellayambalam		1.75
3	Supplying and installation of smart meters		2.29
	Total	45.00	29.04
SEWERAGE SECTOR			
1 a	Laying 900mm dia DI pumping main at Muttathara Sewerage Treatment Plant	3.72	
1 b	Rehabilitation of existing pump and machinaries Kannammoola pump.		
2	Laying 700mm dia RCC NP3 pipe sewer trunk main II from Murinjapalam-Kannammoola	1.33	
3	Construction of sewerage pump house at Edathara in Thiruvananthapuram Corporation	5.87	
4	Supplying and laying 60mm dia DI pumping main from pump at Edathara to STP at Muttathara in Thiruvananthapuram Corporation	17.29	
5	Decentralized 5 MLD sewerage treatment plant STP at Medical College including water recycling plant and reuse.	5.90	13.26
6	Rehabilitation of existing networks in the missing area of the core city		3.84
7	Providing new network in the missing area of the core city in Thiruvananthapuram		7.98
8	Laying transmission and sewer networks in Block L (Edathara) collection and conveyance system		25.00
	Total	34.11	50.08
KOLLAM			
WATER SUPPLY SECTOR			
1	Replacement of contaminated AC pipe lines in Kollam corporation - Laying distribution main from Pazhayattukuzhy OHSR to Ammannada Division in Kollam Corporation (250mm DI K9 pipe -2500)	6.59	
2	Improvement of Kollam WSS Division No.7 to 11 in Kollam Corporation Replacement of damaged pipes	18.28	

3	Augmentation of water supply scheme Kollam		25.07
4	Providing new water connection in Kollam Corporation 216-17		7.00
	Total	24.87	32.07
SEWERAGE SECTOR			
	sewerage Treatment plant - Kureepuzha	18.76	11.24
	Total	18.76	11.24
ALAPPUZHA			
WATER SUPPLY SECTOR			
1	Augmentation and modernization of Water Supply Distribution System in Alappuzha Municipality (Phase I)	33.90	
2	Augmentation and modernization of Water Supply Distribution System in Alappuzha Municipality (Phase II)		56.87
	Total	33.90	56.87
KOCHI			
WATER SUPPLY SECTOR			
1	Replacement of existing 525mm distribution cum pumping main with 600mm rider pumping main from Karuvelipadi to Koovapadam in Kochi Corporation	3.65	
2	Construction of 15LL capacity GL tank at Karuvelipadi in Kochi Corporation	3.20	
3	Replacement of old 250mm CI Pipe by 300mm DI K9 pipe along Konthuruthi road		0.82
4	Replacement of 100mm AC pipe by laying rider line of 160mm PVC pipes from Valanjabalam to Ravipuram in Kochi Corporation		1.61
5	Replacement of 100mm CI pipe by laying rider line of 160mm and 110mm PVC CL5 along both side at Pandit Karupan Road of Kochi Corporation		0.66
6	Laying 450mm DI K9 pipe from north end of Aroor Edakochi bridge to KWA water tank site at Edakochi, Kochi Corporation 2016-17		1.52
7	Laying pumping main of 500mm DI pipe from JNNURM WTP at Maradu to pumphouse at Thammanam for additional pumping of water (upto 18 MLD to Kochi City in Kochi Corporation 2016-17)		16.50
8	Laying rider main from Kathrikadavu to Elamkulam, Chettichira, Ponrurnni area and distribution lines in Chakkaraparambu areas		3.25

9	Construction of 17LL capacity OHSR and 2.5LL GL sump at		7.75
10	Construction of 15LL capacity OHSR and 2.0LL GL sump at Cheranalloor		7.75
11	Construction of 10LL capacity OHSR at Thevara		5.60
12	Water Supply sector - Kochi Corporation - Laying 500mm DI line from pumphouse at Thammanam to OHSR at Kadavanthara		7.65
13	Laying transmission line from Kathrikadavu to Pachalam		10.70
	Total	6.85	63.81
SEWERAGE SECTOR			
1	Rehabilitation of 5 MLDSTP plant at Elamkulam (Work changed instead of implementation of Decentralized sewerage system)	13.70	
	Total	13.70	0.00
THRISSUR			
WATER SUPPLY SECTOR			
1	Survey and replacing of faulty meters and fixing new water meters at various service connections in Thrissur Corporation Area	3.00	
2	Supply and installation of bulk flow water meters in transmission main and distribution system	1.00	
3	Supplying and laying 700mm DI K9 raw water gravity main from dam to aerator of 36 MLD WTP at Peechi	1.00	
4	Strengthening the existing distribution system to Thrissur Corporation area - Replacement of very old 80/100/125/300 AC and 70mm Premo pipes with 110/140 PVC and 200/300/350 mm DI pipes at various places in Thrissur Corporation	14.40	
5	Renovation of existing damaged pumphouse in Thrissur Corporation	0.55	
6	Rehabilitation of Thrissur Corporation WSS to Koorkanchery zone - Supply and laying separate branched gravity main of 400mm DI K9 and replacement of 70mm premo with 700mm DI K9 pipe, and supply erection and commissioning of 65HP centrifugal motor pumpset for replacing of existing old pumpsets - 2 Nos at Koorkanchery sump and allied works	3.41	
7	Completion of ongoing schemes - UWSS to Ollur and Edakkunni census town villages in Thrissur Corporation - Construction of 20 L Ltrs capacity OHSR at Ollur and Supplying, laying distribution lines and construction of retaining wall at WTP Arattupuzha	11.40	

8	Design, construction and commissioning of 3 MLD WTP, reservoir and pumping main for Ollukkara Zone	6.00	
9	Replacement of AC/PVC pipes to 500mm DIK9 and 60mm PVC pipes in the corporation area around 42 kms		12.95
10	Supplying and laying of various dia distribution lines for around 100 kms with pipes dia 160mm PVC to 300mm DI		8.00
11	Construction of new treatment plant of 20 MLD WTP at Peechi		12.00
	Total	40.76	32.95
GURUVAYUR			
WATER SUPPLY SECTOR			
1	Laying distribution network for improvement of coverage in Guruvayur Pookode zone in Guruvayur Municipality 2015-16	13.72	
2	Construction of 10 LL OHSR and pumping main to Guruvayur and balance distribution network to the Municipality		15.50
3	Improvement of Water Supply Scheme for Guruvayur (Package II)		26.00
4	Laying distribution networks in Thykkad Zone - Guruvayur Municipality		10.00
	Total	13.72	51.50
PALAKKAD			
WATER SUPPLY SECTOR			
1	Providing new DI pipe line of 600mm DI dia clear water pumping main Puthur to Moothanthara OHSR (Part I) in Palakkad Municipality	5.44	
2	Providing new DI pipe line of 600mm DI dia clear water pumping main Moothanthara To Kalmandapam OHSR (Part 2) in Palakkad Municipality	4.56	
3	Construction of 45 MLD water treatment plant at Malampuzha, KWA compound and booster station		22.25
4	600mm DI K9 new pumping main from Malampuzha WTP to Mattumantha DI-K9 pipe 600mm 2850m		6.25
5	Supply and erection of electromagnetic flow meter		0.50
6	Construction of 16 LL OHSR at Kalmandapam, KWA and demolishing the existing OHSR		3.00
	Total	10.00	32.00

KOZHICKODE			
WATER SUPPLY SECTOR			
1	Rehabilitation of old valves, interconnections with existing lines and providing water meters in Kozhikode Corporation - Phase I	17.87	
2	Rehabilitation of existing old pipes, valves and interconnection with the existing lines (Phase II)		14.63
3	Strengthening of existing infrastructure facilities and quality improvement of CWSS in Kozhikode Corporation		17.27
	Total	17.87	31.90
KANNUR			
WATER SUPPLY SECTOR			
1	Laying gravity main from JICA project at Mangattuparamba to Pallikkunnu OHSR for Pallikkunnu and Puzhathi villages in Kannur Taluk of Kannur Corporation	23.50	
2	Constuction of 24 LL OHSR at Pallikkunnu for Pallikkunnu & Puzhathi Villages in Kannur Corporation	4.05	
3	Construciton of 14 LL OHSR at Thottada at Edakkad Zone III in Kannur Corporation	3.00	
4	Rehabilitation of old distibution networks, valves house service connections and inter connections in Kannur Corporation.	16.90	
5	Rehabilitation of existing distribution network, valves, house service connection and interconnection with existing lines of Pallikkunnu zones Kannur Corporation.		15.00
6	Laying of gravity main from water supply system to Kannur at Melechowwa to sump at Avera to OHSR at Thottada including erection of pumpsets at Avera in Kannur Corporation 2016-17.		6.80
7	Enhancing capacity of treatment plant from 30MLD to 40 MLD including modernisation of existing treatment plant		7.80
	Total	47.45	29.60
	GRAND TOTAL	306.99	421.06

List of On-going NRDWP Projects				
Sl. No.	District	Scheme	Sanction Year	AS Amount
1	Trivandrum	CWSS to Edakkode, Keezhethonnackal, Melethonnackal, Pallippuram and Veiloor Balance Works	2011-12	1000.00
2	Trivandrum	CWSS to Iroorpara village Balance works	2011-12	840.00
3	Trivandrum	Augmentation of water supply scheme to Pallickal and Madavoor Panchayath	2012-13	980.00
4	Trivandrum	CWSS to Manoorkkara, Veeranakavu & Perumkulam villages	2012-13	2075.00
5	Trivandrum	Water Supply Scheme to Kallara, Pangodu villages balance works	2012-13	907.00
6	Trivandrum	19th SLSSC scheme - Sustainability of water sources - Renovation of Anatazhichira in Andoorkonam Grama panchayath Phase II	2013-14	441.00
7	Trivandrum	Source sustainability TWSS to Kakkakuzhy in Vettoor Pt	2013-14	291.50
8	Trivandrum	CWSS to Anadu, Palode & Kurupuzha villages Phase I	2014-15	1500.00
9	Trivandrum	CWSS to Kanjiramkulam, Thirupuram and Karumkulam panchayaths	2014-15	1462.00
10	Trivandrum	Water harvesting for the sustainability of Vandichira pond - Renovation of RWSS to Parassala	2015-16	244.00
11	Kollam	WSS to Pattazhy and Pattazhy Vadakkekara	2011-12	1340.00
12	Kollam	WSS to Mylom, Thalavoor and Pidavoor	2011-12	2005.00
13	Kollam	WSS to Thevalakkara and Thekkumbhagom Panchayaths - Part II	2011-12	600.00
14	Kollam	RWSS to Kulathupuzha and adjoining villages Phase II	2012-13	1815.00
15	Kollam	RWSS to Thrikkovilvattom and Nedumpana (Part) Panchayath	2012-13	1000.00
16	Kollam	CWSS to West Kallada, Sooranad South and Sasthamcotta Pt. (ARP) Phase II	2014-15	1115.00
17	Pathanamthitta	RWSS to Ranni, Pazhavangadi and Vadasserikkara laying balance distribution line	2011-12	1548.99
18	Pathanamthitta	Providing water supply to quality affected habitations - Wards 3,4,7 & 8 of Peringara Pt	2012-13	372.75
19	Pathanamthitta	WSS to Perunadu & Athikkayam Phase I	2012-13	1400.00
20	Pathanamthitta	WSS to Ezhumattur panchayath Phase I	2012-13	591.00
21	Pathanamthitta	RWSS to Elanthoor Mallalpuzhasery villages Phase 2 laying distribution system and construction of water treatment plant	2012-13	867.00
22	Pathanamthitta	RWSS to Kaviyoor & Kunnamthanam villages Balance works	2012-13	477.00
23	Pathanamthitta	RWSS to Elanthoor and Mallappuzhasseri villages - Source sustainability - Improvement	2013-14	58.50

		works for source and intake well cum pump house		
24	Pathanamthitta	WSS to Ayroor-Kanjettukara in Pathanamthitta District - Phase I	2013-14	1400.00
25	Pathanamthitta	RWSS to Kallumala area Vechoochira panchayath (Part) Perunadu panchayath (Part) & Naranamoozhy panchayth (Part)	2013-14	800.00
26	Pathanamthitta	WSS to Kozhencherry Phase I	2013-14	950.00
27	Pathanamthitta	WSS to Pandalam laying DI distribution system and clear water pumping main using DI Pipes	2013-14	700.00
28	Pathanamthitta	CRWSS to Nedumbram, Niranam, Kadappa and Peringara pts - Phase I	2013-14	2700.00
29	Alappuzha	CARWSS to Bharanikavu and adjoining villages Phase I & II (Phase I- Rs.397.78 L + Phase II - Rs.1007.02L)	2003-04	1404.80
30	Alappuzha	ARWSS to Nooranadu, Chunakkara and adjoining villages Phase II	2003-04	425.00
31	Alappuzha	WSS to 8 Pts in Ambalapuzha Taluk	2008-09	5959.00
32	Alappuzha	CWSS to Palamel and Thamarakulam Panchayath	2011-12	780.00
33	Alappuzha	ARWSS to Kurattissery and adjoining villages	2013-14	602.00
34	Alappuzha	CWSS to Harippad and adjoining 5 panchayaths Phase I	2013-14	3500.00
35	Alappuzha	ARWSS to Nooranad & Chunakkara villages - balance works for Phase I	2015-16	200.00
36	Kottayam	Ettumanoor & adjoining villages Phase I and Phase II SLSSC 21.08.1998	2002-03	4872.43
37	Kottayam	Manimala Phase I & Phase III SLSSC 18.06.1999	2002-03	1833.00
38	Kottayam	ARWSS to Kanjirappally, Elikkulam and Chirakkadavu Panchayaths SLSSC 09.07.2007	2007-08	1430.00
39	Kottayam	WSS to Vakathanam Panchayath	2011-12	3000.00
40	Kottayam	ARWSS to Kanjirappally, Elikkulam and Chirakkadavu Panchayaths (Distribution)	2012-13	1722.00
41	Kottayam	RWSS to Quality affected habitations in Kulasekharamangalam village balance works	2012-13	975.00
42	Kottayam	RWSS to quality affected habitation in Chempu Village Balance works	2012-13	350.00
43	Kottayam	CWSS to Puthupally and Meenadon panchayaths Phase I	2013-14	1815.40
44	Kottayam	WSS to Manarkadu Panchayath (Aug)	2013-14	1475.00
45	Kottayam	ARWSS to Akalakunnam and Muthol i panchayath Phase I	2013-14	1547.00
46	Kottayam	ARWSS to Ayarkunnam, Kooroppada and Pampady panchayaths Phase I	2013-14	1946.00

47	Kottayam	Aug. Of WSS to Vijayapuram Pt.	2013-14	4300.00
48	Kottayam	NRDWP-WSS to Kaduthuruthy, Kallara & Njeezhoor Pts. Phase II - Supplying, laying, testing, commissioning and maintenance of various size of PVC & GI pipes in various places of Kaduthuruthy, Kallara and Njeezhoor Pts	2013-14	350.00
49	Kottayam	NRDWP-WSS to Veliyannoor & Uzhavoor Pts. Phase II - Supplying, laying, testing, commissioning and maintenance of various size of PVC & GI pipes in various places of Veliyannoor and Uzhavoor Pts	2013-14	400.00
50	Kottayam	RWSS to TV Puram Panchayath (Vaikom Part) Village in Kottayam District	2013-14	200.00
51	Kottayam	RWSS to Thalayolaparambu Pt (Vadayar village)	2013-14	840.00
52	Kottayam	Completion of water supply scheme to Manimala and adjoining 4 panchayaths	2014-15	3250.00
53	Kottayam	RWSS to Kaduthuruthy & adj. Villages - Veliyannoor area	2014-15	190.00
54	Kottayam	RWSS to Kaduthuruthy & adj. Villages - Njeezhoor area	2014-15	300.00
55	Kottayam	RWSS to Udayanapuram Panchayath (Vadakkumuri & Navile Part Village)	2015-16	800.00
56	Idukki	ARWSS to Vandanmedu and Anakkara villages	1995-96	529.00
57	Idukki	CARWSS to Kattapana and Ayyappancovil villages	2002-03	2314.00
58	Idukki	ARWSS to Vellathooval & Konnathady villages	2002-03	2524.00
59	Idukki	Augmentation of WSS to Kumily	2007-08	1200.00
60	Idukki	Providing water supply arrangements to Erattayar Panchayath in Kalkoonthal village - extension of water supply to the uncovered areas of Adayalathandu	2010-11	310.00
61	Idukki	NRDW P-XVI SLSSC 03.10.2011 VARSHA for rain water harvesting scheme 487 units under PH Division, Thodupuzha	2011-12	175.32
62	Idukki	Providing water supply arrangements to the hilly areas of Kanchiyar panchayath	2011-12	308.90
63	Idukki	Providing water supply arrangements to the hilly areas of Ayyappancovil panchayath	2011-12	76.97
64	Idukki	Providing water supply arrangements to the hilly areas of Kattappana panchayath	2011-12	711.63
65	Idukki	Providing water supply arrangements to the hilly areas of Peerumedu and Vandiperiyar panchayath	2011-12	900.00
66	Idukki	Providing water supply arrangements to the hilly areas of Peruvanthanam and Kokkayar panchayath	2011-12	700.00
67	Idukki	Extension of water supply to hilly areas of Kumily Grama panchayath in Idukki district	2012-13	900.00
68	Idukki	WSS to Kumaramangalam panchayath in Idukki District Phase I	2012-13	1000.00

69	Idukki	WSS to Purappuzha and Manakkad panchayaths	2012-13	3000.00
70	Idukki	Providing water supply scheme to Adimali & nearby areas of Munnamkandom village in Idukki District	2012-13	720.00
71	Idukki	Providing water supply scheme to District head quarters Idukki, Painavu colony, Cheruthony and Thannikkandam areas of Vazhathope panchayath	2012-13	980.00
72	Idukki	NRDWP 2013 WSS to Velliyamattom	2013-14	2000.00
73	Idukki	WSS to Muttom and Karinkunnam panchayaths in Idukki district	2014-15	4000.00
74	Ernakulam	Improvement of RWSS to Manajalloor Panchayath Construction of 2 Nos GLSR and providing distribution system zone I & IV balance work	2011-12	32.00
75	Ernakulam	Construction of check dam across Muvattupuzha river downstream of Ramamangalam bridge near Puthumana lift Irrigation scheme for improving WSS to Thrippunithura municipality and adjoining panchayath sustainability	2015-16	1100.00
76	Thrissur	Augmentation of ARWSS to Thrikkur & Kallur villages - Balance works	2011-12	545.24
77	Thrissur	Augmentation of Pavaratty Regional WSS covering 10 panchayaths in Thrissur and Palakkadu districts	2012-13	1725.00
78	Thrissur	WSS to Edavilangu and Eriyad panchayath - distribution network	2013-14	500.00
79	Thrissur	WSS to Karalam panchayath in Mukundapuram taluk of Thrissur district	2013-14	1050.00
80	Thrissur	WSS to Thalikkulam Pt by augmenting Nattika Firka scheme (PURA Scheme) Phase I	2015-16	2200.00
81	Malappuram	WSS to Kannamangalam panchayath	2012-13	1000.00
82	Malappuram	CRWSS to Thiruvalli and adjoining villages Phase I - Thiruvalli village	2012-13	1450.00
83	Malappuram	CARWSS to Moorkkanadu and adjoining villages Phase II - Kuruva village low level zone laying distribution system	2013-14	663.25
84	Malappuram	CARWSS to Moorkkanadu and adjoining villages Phase V- Mankada village laying distribution system	2013-14	600.00
85	Malappuram	WSS to Cheeckode and adjoining pts providing distribution network phase I	2013-14	2200.00
86	Malappuram	CARWSS to Thirunavaya and adjoining villages laying distribution system in Marakkara panchayath	2013-14	800.00
87	Malappuram	WSS to Valavannur & Kalpakancheri Pt. by enhancing the capacities of ongoing ARWSS to Thirunavaya and adjoining villages	2013-14	1250.00
88	Malappuram	WSS to Thazhekodde and Aliparambu panchayaths in Malappuram district Phase I	2013-14	750.00

89	Malappuram	WSS to Kavannoor	2013-14	700.00
90	Malappuram	WSS to AR Nagar Grama panchayath	2013-14	700.00
91	Malappuram	Water supply projects for 7 panchayaths in Nilamboor constituency	2014-15	1400.00
92	Malappuram	WSS to Kavannoor Pts Phase II	2014-15	1000.00
93	Malappuram	WSS to Thirurangadi Pt. PURA Scheme Phase I	2014-15	1000.00
94	Malappuram	CRWSS to Moorkanadu and adjoining villages Phase IV Koottilangadi Village laying Distribution System	2014-15	600.00
95	Malappuram	CRWSS to Moorkanad and adjoining villages phase I Moorkkanad village High level zone - Part II laying distribution system	2014-15	193.00
96	Malappuram	WSS to Valavannur panchayath by enhancing the capacity of ongoing WSS to Thirunavaya and adjoining villages Phase II distribution system	2014-15	1455.00
97	Malappuram	CRWSS to Tharuvali & adjoining villages Phase II Wandoor Village part (eastern side of railway line)	2014-15	593.00
98	Malappuram	Water Supply Scheme to Kannamangalam village Phase II laying distribution lines	2015-16	1400.00
99	Palakkad	CWSS to Kuzhalmannam, Thenkurissi and Kannadi panchayaths in Palakkad district Phase I	2011-12	1500.00
100	Palakkad	CWSS to Mannarkadu and Thenkara villages in Mannarkadu taluk	2012-13	571.30
101	Palakkad	WSS to quality affected habitations of Kuzhalmannam, Themkurissi and Kannadi panchayaths in Palakkad district Phase II	2012-13	700.00
102	Palakkad	Augmentation of WSS to Nenmara, Ayilur & Melarcode GPs in Chittur and Alathur taluks in Palakkad district Phase I	2013-14	1100.00
103	Palakkad	Augmentation of WSS to Peruvembu Pt. in Palakkad District	2013-14	500.00
104	Palakkad	WSS to Karimpuzha in Palakkad district - replacing existing old and damaged AC pipe line with DI pipes gap linking in the PM for Zone II	2013-14	480.00
105	Palakkad	Improvements to WSS to Sreekrishnapuram and adjoining pts. - laying distribution lines for zones I, II, III&IV in Ottappalam taluk	2013-14	800.00
106	Palakkad	Augmentation of WSS to Nellaya and Kulukaiiur panchayaths laying distribution lines for zone I & II	2014-15	900.00
107	Palakkad	WSS to Anakkara, Pattithara & Kappur Pts - Phase II	2014-15	1000.00
108	Palakkad	RWSS to Karimpuzha I & II villages - Extension of distribution to uncovered areas - Phase II	2014-15	500.00
109	Palakkad	WSS to Naripatta village - Laying distribution systems	2011-12	300.00

110	Kozhikode	WSS to Vanimel village laying distribution system	2011-12	533.00
111	Kozhikode	WSS to Valayam village laying distribution system	2011-12	300.00
112	Kozhikode	Augmentation of WSS to Unnikulam - Sivapuram	2012-13	430.00
113	Kozhikode	WSS to Kayakodi village - Laying Distribution system	2012-13	1563.15
114	Kozhikode	ARWSS-CWSS to Kunnummal & Adjoining villages - Ph	2012-13	118.24
115	Kozhikode	ARWSS-CWSS to Kunnummal & Adjoining villages - Ph	2012-13	223.20
116	Kozhikode	ARWSS-CWSS to Kunnummal & Adjoining villages - Ph	2012-13	343.39
117	Kozhikode	ARWSS-CWSS to Kunnummal & Adjoining villages - Ph	2012-13	378.11
118	Kozhikode	ARWSS-CWSS to Kunnummal & Adjoining villages - Ph	2012-13	428.18
119	Kozhikode	WSS to Naripetta Village - laying balance distribution systems for additional coverage	2013-14	50.60
120	Kozhikode	WSS to Valayam Village - Laying balance distribution system for additional coverage	2013-14	95.00
121	Kozhikode	WSS to Kayakkodi villages - laying balance distribution system for additional coverage	2013-14	105.50
122	Wayanad	ARWSS to Krishnagiri, Purakkady and Ambalavayal villages	2007-08	950.00
123	Wayanad	WSS to Krishnagiri, Purakkadi villages in Meenangadi panchayath of Wayanad district - laying distribution system	2011-12	333.00
124	Wayanad	CWSS to Thariyode, Pozhuthana, Kottathara, Vengappally and Padjinjarathara panchayaths Phase I (quality affected)	2013-14	1500.00
125	Wayanad	WSS to Kalliyottukunnu (Ward No.03) in Mananthavady panchayath	2013-14	128.00
126	Kannur	CWSS to Irikkur and adjoining villages - Additional coverage to Srekandapuram, Malapattom, Kalliad and Nuchiad villages	2013-14	800.00
127	Kannur	Water Supply Scheme to Anjarakandy, Peralassery and adjoining panchayaths additional coverage laying distribution line	2014-15	586.00
128	Kannur	WSS to Madayi panchayath	2015-16	586.00
129	Kasaragod	WSS to Munnad, Bediyadukka, Kuttikkol	2007-08	700.00
130	Kasaragod	WSS to East Eleri	2011-12	1212.00
131	Kasaragod	WSS to Chengala, Muliyar, Madhur & Mogral - Puthur Phase I	2012-13	1980.00
132	Kasaragod	Construction of 6.5m height RCC weir across Kariankode river for the WSS to Naval Academy Ezhimala Endosulfan WSS to Kayyur Cheemeni Hozdurg Taluk of Kasargod district	2012-13	1000.00
133	Kasaragod	WSS to Munnad Bedaduka & Kuttikole Villages -balance work in Kasargod district	2015-16	600.00

**KIIFB SCHEMES FOR WHICH ADMINISTRATIVE SANCTION
RECEIVED FROM GOVERNMENT**

Sl.No.	Name of Scheme	Estimate Amount (Rs.in Crore)
1	Comprehensive water supply scheme to Elavanchery-Pallassana	20.00
2	Comprehensive water supply scheme to Karimba, Kongodu panchayaths	27.30
3	Water Supply Scheme to Farok, Kuruvanthuruthi	14.00
4	Water Supply Scheme to Peravoor, Muzhakkunnu, Paayam and Achankunnu panchayaths in Kannur District	71.20
5	Comprehensive Clear Water Supply Scheme to Vandazhy, Kizhakkanchery-Vadakkanchery-Kunnambra Panchayaths	75.00
6	Kizhakkannamala Water Supply Scheme	38.50
7	Ettumanoor Water Supply Scheme	58.55
8	Karimbukayam Water Supply Scheme	57.07
9	Water Supply Scheme to Ala-puliyoor, Budhanoor, Pandanadu panchayaths	116.00
10	Water Supply Scheme to coastal areas of Chirayinkeezhu Constituency	75.00
11	Extension of Angamaly Water Supply Scheme	25.00
12	Water Supply Scheme for resolving scarcity of drinking water to various panchayaths of Malampuzha	90.00
13	Mancheri Sub Urban Water Supply Scheme	74.50
	Total	742.12

SCHEMES FOR WHICH SANCTION RECEIVED FROM GOVERNMENT IN-PRINCIPLE

Sl.No.	Name of Scheme	Estimate Amount (Rs.in Crore)
1	Water Supply Scheme to Pattazhi, Vadakkekara, Mailam, Thalavoor Panchayaths - Phase II	60.61
2	Water Supply Scheme to Chazhoor, Anthikkadu, Thannyam panchayaths	31.00
3	Water Supply Scheme to Kodassery, Pariyaram, Athirappally panchayaths	55.00
4	Water Supply Scheme to Nattika Firka	66.00
5	Water Supply Scheme to Edayoor, Irimbilyam, Valanchery	75.00
6	Water Supply Scheme to Ayyappan kovil	47.50
7	Water Supply Scheme with Thiruvananthapuram Neyyar Dam as alternate source	203.89
8	Improvements of Water Supply Scheme to Mudakkal Panchayath	11.58

9	Comprehensive Water Supply Scheme to Karode Panchayath	86.00
10	Water Supply Scheme to the coastal areas of Chirayinkeezhu Constituency	18.28
11	Treated Water Supply Scheme to Athiyannur, Kottukal panchayaths	25.00
12	Water Supply Scheme to Ramanchadi-Aligar	90.00
13	Treated Water Supply Scheme to Karumaloor Panchayath	36.50
14	Comprehensive Water Supply Scheme to Idavanna Panchayath- Phase II	53.40
15	Comprehensive Water Supply Scheme to Thalassery-Koothuparambu	80.14
16	Water Supply Scheme to Kuttanadu - Phase II	241.00
17	Comprehensive Water Supply Scheme to Pulimath, Nagaroor, Karavaram Panchayaths - Phase I	83.00
18	Water Supply Scheme to Kunjimangalam, Cheruthazham, Ezhimala Naval Academy - Phase I	45.00
19	Water Supply Scheme to Paingottoor panchayath in Ernakulam District	23.00
20	Comprehensive Water Supply Scheme to Kozhinjampara, Vadakarapathi, Eruthempathy Panchayaths in Palakkad District	29.00
21	Water Supply Scheme to Perumatty, Pattanchery, Elappully, Nalleppully Panchayaths in Palakkad District	25.00
22	Water Supply Scheme to Ambalappara panchayath of Ottappalam Taluk - Phase II	10.00
	Total	1395.90

KIIFB SCHEMES SUBMITTED TO GOVERNMENT FOR ADMINISTRATIVE SANCTION

Sl.No.	Name of Scheme	Estimate Amount (Rs.in Crore)
1	Comprehensive Water Supply Scheme to Puramattam, Kallooppara, Ezhumattoor, Kannanthanam, Eraviperoor Thottapuzhassery, Koyippuram panchayaths	85.00
2	Water Supply Scheme to Chathannoor	48.00
	Total	133.00
	Grand Total	1528.90

SCHEMES WHICH RECEIVED SANCTION FROM KIIFB

Sl. No.	Sl. No. in Annexure I	Name of Scheme	Estimate Amount (Rs.in Crore)
1		Water Supply Scheme to Pattazhi, Vadakkekkara, Mailam, Thalavoor Panchayaths - Phase II	60.13
2		Comprehensive water supply scheme to Idavanna Panchayath- Phase II	47.21
		Total	107.34

CHAPTER V

JICA Assisted Kerala Water Supply Project

The JICA assisted Kerala Water Supply Project (KWSP) being implemented by Kerala Water Authority comprises of following 5 schemes:

1. Augmentation and Rehabilitation of Water Supply Scheme to Thiruvananthapuram city region.
2. Water Supply Scheme to Meenad and adjoining Panchayaths in Kollam District.
3. Water Supply Scheme to Cherthala Municipality and adjoining Panchayaths in Alappuzha District.
4. Augmentation and Rehabilitation of Water Supply Scheme to Kozhikkode City and adjoining Panchayaths.
5. Water Supply Scheme to Pattuvam and adjoining Panchayaths in Kannur District.

Key features of the project

Scheme	WTP (MLD)	Transmission Main (km)		Distribution Main (km)	Service Reservoirs (No.)
		Raw Water	Treated Water		
Thiruvananthapuram	74	0.30	41.32	388	11
Meenad	71	1.58	80.40	963	14
Cherthala	107	20.88	81.00	663	18
Kozhikkode	174	0.44	123.31	1853	20
Pattuvam	90	11.54	82.00	623	13
Total	516	34.74	408.03	4490	76

The project is nearing completion. The major components of all the five schemes under the project have been completed for production, transmission and storage of treated water viz, intake, raw water pumping/gravity mains, transmission systems and service reservoirs. The installed capacity of all the schemes is 516 MLD, for raw water pumping and production of treated water. The treatment plants are based on state-of-the-art design,

using either lamella plate clarifier technology or sludge blanket clarifiers and equipped with automatic control and operational features. For raw water pumping from source to Water Treatment Plant, 34 km of pipe lines and for clear water transmission 408 km of pipe lines have been laid for the five schemes overall. There are 76 new Ground Level or Over Head Service Reservoirs constructed for the five schemes with an overall capacity of 232.96 Million litres for the distribution of treated water.

The schemes are operational now except for the following (i) Portion of distribution networks of Meenad and Kozhikode schemes (ii) Rehabilitation works of existing water treatment plants of Thiruvananthapuram and (iii) a few components of Institutional Strengthening. Of 4490 km of distribution lines envisaged in the five schemes, about 3782km has been laid and remaining to be laid is 708 km (Thiruvananthapuram: 23 km Kozhikode:547 km and Meenad:138 km). The distribution networks envisaged for Cherthala and Pattuvam have been completely laid.

The project when fully completed is expected to benefit 41 lakh people. The revised estimated cost of the project is Rs. 2987.40 crores,

The Institutional Strengthening component of KWSP covers various aspects such as Central Control Unit, procurement of equipments, procurement of services, network & connectivity, servers & storage infrastructure. The work of Central Control Unit which comprise of a 10 storeyed building is completed. The main components pending completion under IS are ERP, Asset Management and installation of flow meters.

Project Progress

Sl. No.	Schemes	Planned Progress	Achieved Progress %
1	Thiruvananthapuram Scheme	100	96
2	Meenad Scheme	100	94
3	Cherthala Scheme	100	100
4	Kozhikkode Scheme	100	94
5	Pattuvam Scheme	100	100

Physical progress achieved as on 31/03/2017

SCHEME	PACKAGE	DESCRIPTION	% PROGRESS	EXPECTED DATE OF COMPLETION
Trivandrum	I	Intake, Raw Water Pipeline and WTP	100%	Completed
	II	Treated Water Transmission Pipeline	100%	Completed
	III	Distribution Systems	contract closed	Contract terminated and rearranged as PIII - R1
	III-R1	Distribution Systems	82%	June 2017
	IV	Service Reservoirs	100%	Completed
	V	Rehabilitation works of existing system	76 %	December 2017
Meenad	I	Intake, Raw Water Pipeline and WTP	100%	Completed
	II	Treated Water Transmission Pipeline	100%	Completed
	III	Distribution Systems	work terminated	Contract terminated and rearranged as PIII - R1
	III-R1	Distribution Systems	42%	June 2018
	IV	Service Reservoirs	100%	Completed
Cherthala	I	Intake, Raw Water Pipeline and WTP	100%	Completed
	II	Treated Water Transmission Pipeline	100%	
	III	Distribution Systems	100%	
	IV	Service Reservoirs	100%	
Kozhikode	I	Intake, Raw Water Pipeline and WTP	100%	Completed
	IIA	Treated Water Transmission Pipeline	100%	Completed
	IIB	Treated Water Transmission Pipeline	100%	Completed
	III	Distribution Systems	work terminated	Contract terminated and rearranged as PIII - R1 & R2
	III-R1	Distribution Systems	49%	December 2019

	III-R2	Distribution Systems	50%	December 2019
	IV	Service Reservoirs	100%	Completed
	IV-R1	Service Reservoirs at Thalikulathur	100%	Completed
	IV-R2	Service Reservoirs at Kakkur	100%	Completed
	IV-R3	Service Reservoirs at Narikunni	100%	Completed
	V	Rehabilitation Works of Existing System	98%	July 2017.All works completed except power allocation
Pattuvam	I	Intake, Raw Water Pipeline and WTP	100%	Completed
	II	Treated Water Transmission Pipeline	100%	Completed
	III	Distribution Systems	Contract terminated and rearranged as PIII -R1 , R5 & R6	Completed
	III-R1	Distribution Systems	100%	
	III-R5	Distribution Systems	100%	
	III-R6	Distribution Systems	100%	
	IV	Service Reservoirs	100%	

CHAPTER VI

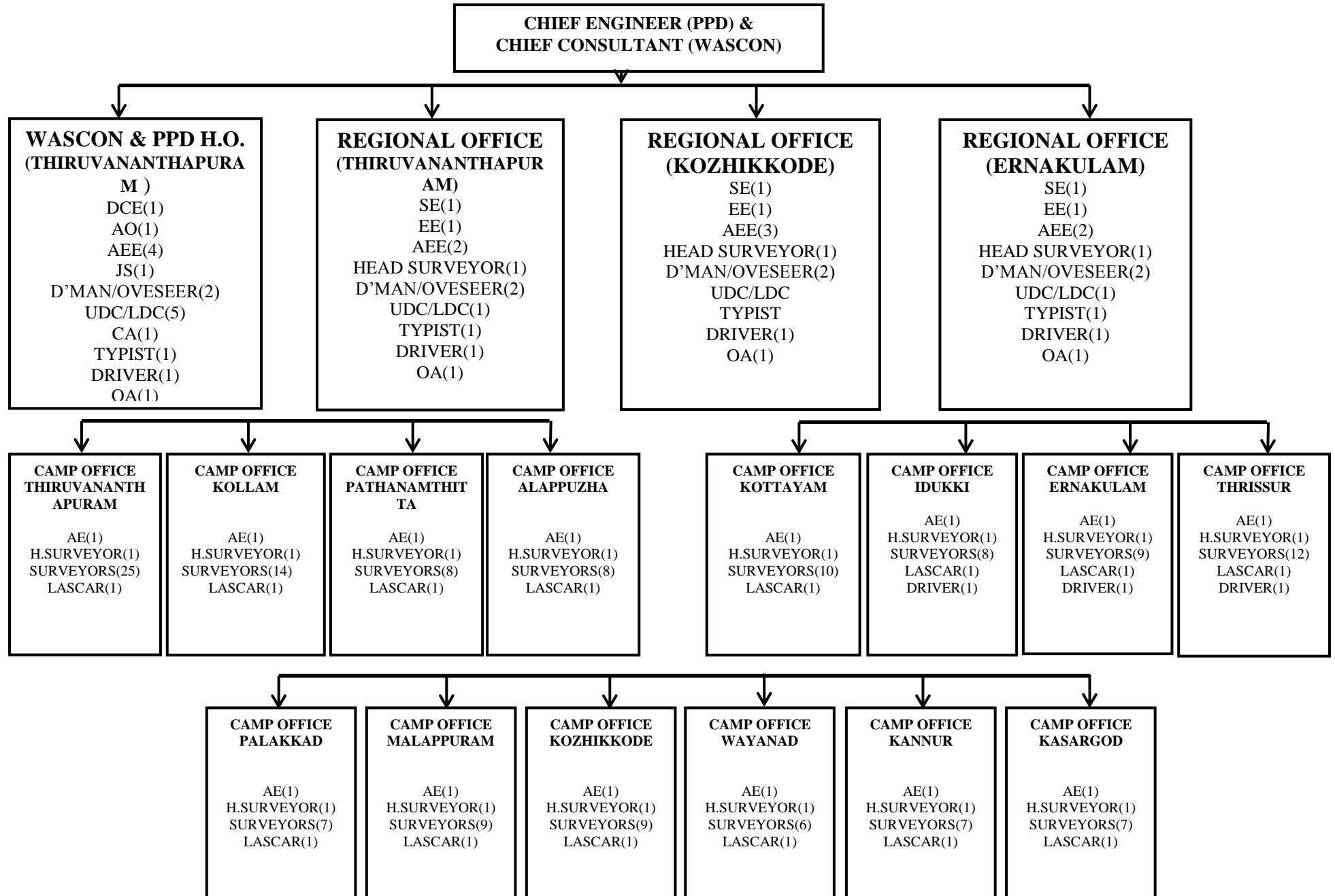
PPD & WASCON

WASCON, the consultancy wing of Kerala Water Authority was setup as per GO(Rt.)45/2008/WRD dated 08/01/2008 with intention of providing Engineering Consultancy services for inhouse works and outside works. Since its inception, WASCON has taken up many design works as well as preparation of project reports for many Water Supply Schemes. Detailed Project Reports for Jalanidhi Phase I, Jalanidhi Phase II, Water Supply Scheme to Technocity, Thiruvananthapuram, WSS to KINFRA Industrial Park Kanjikkode, Distribution network for Kochi Corporation & adjoining Panchayaths were some of the works prepared by WASCON. WASCON had also done designs for many Water Treatment Plants and Service Reservoirs. Design for 100 mld Water Treatment Plant for JnNURM Water Supply Augmentation for Kochi Corporation was one among them.

Later on Project Preparation and Development Unit was formed vide proceedings no. KWA/JB/E2(A)/18977/2015 of Managing Director dated 27-02-2016 by reorganizing WASCON into PPD & WASCON so as to take up preparation of well planned and well designed projects.

The Unit is headed by a Chief Engineer and has 3 regional offices at Thiruvananthapuram, Kochi and Kozhikkode which are headed by Superintending Engineers. In addition there are Camp offices in each district which is under the control of Assistant Engineer. Survey works are done by the Camp offices and engineering reports are prepared and submitted to the higher offices for approval.

ORGANISATIONAL STRUCTURE OF WASCON



List of works of PPD&WASCON during 2016-17

<u>Office of CE, WASCON & PPD</u>	
1	Design of RCC duct for laying pipes through roads
2	Replacement of AC pipes - Vazhakala, Kizhakkambalam, Kunnathunadu, Project Division - Perumbavoor - Design of pipe supports.
3	NRDWP - WSS to Pavaratty - Design of 6.77 LL OHSR
4	NRDWP - WSS to Mallassery - Design of 5.5 LL OHSR
5	RWSS to Idinjar - Design of Retaining wall at Idinjar, Nedumangadu
6	Sewerage Division, Thiruvananthapuram - Design of Anchor Block for 22.5 ⁰ turn in 900mm dia pipe with 6kg/cm ² pressure
7	Project Division, Thiruvananthapuram - Design of Anchor block for 45 ⁰ turn in 350 mm dia pipe with 10.5 kg/cm ² pressure
8	Deposit work - University of Kerala - Construction of OHSR at Karyavattom Campus - Design of 3 LL OHSR
9	WS Division, Kollam - Rehabilitation of three numbers of Over Head Reservoirs at Kollam
10	DPR verification for Augmentation of WSS to Kollam Corporation
11	Augmentation of WSS to Pallickal Pt. in Varkala Constituency - Laying water supply distribution network in Pallickal Pt. and allied works - hydraulic design in DER
12	Mala Kodungalloor Revised DER for replacement of CWPM & CWPS
13	Aruvikkara - Peroorkada - Manvila main EPANET analysis
14	24 X 7 water supply Vilavoorkal panchayath DER preparation
15	CWSS to Mannarkkad taluk in Palakkad - 7 MLD capacity WTP
16	WSS to Vadakarapathy and adjoining panchayaths DER preparation
17	WSS to Vilakudy, Vettikavala & Melila Pts. - Phase II - DER vetting
18	SAGY - CWSS to Kottukal and adjoining villages - Preparation of DER

19	SAGY - Neendoor & Melukavu Pt. in Kottayam District DER preparation
20	WSS to Ramapuram and adj villages in Kottayam Dist. DER preparation
21	WSS to Lalm-Vallichira & Karoor DER preparation
22	WSS to Kidangoor DER vetting
23	SAGY - Panayam WSS in Kollam DER preparation
24	CWSS to Kanjiramkulam, Thirupuram & Karumkulam villages - Providing distribution networks in Poovar Pt. - DER preparation
25	CRWSS to Nedumpuram, Niranam, Kadapra and Peringara Pt. DER preparation
26	SAGY - Naranmoozhi Pt. in Pathanamthitta DER preparation
27	NRDWP- WSS to Edavilangu and Eriyad panchayats Thrissur - Distribution networks
28	NRDWP-18 th SLSSC- 2012 - Augmentation of Pavaratty Regional WSS - covering 10 panchayats in Thrissur and Palakkad district Replacing 700 mm CI pipe with DI
29	WSS to Thirurangadi Grama Panchayath - Design verification of 300m ³ /hr capacity Water Treatment Plant
30	CWSS to Parassala and adjoining villages & Marukil, Maranalloor villages - Design of pump sets and pumping main design
31	WSS to Seethathode Panchayath and Nilakkal, Plappally area in Perinadu Panchayath - Construction of 9 m dia Well cum pump house and 13 mld WTP at Seethathode
32	WSS to Konni, Medical College in Pathanamthitta district - Construction of 6m diameter Intake well cum Pump house at Santhayathukadavu
33	ARWSS to Kilimanoor, Pazhayakunnummel and Madavoor villages - Interconnection and allied works - Design of surge arrestors
34	CWSS to Vithura and Tholicode villages - Distribution Network Design
35	Surge Analysis - JICA assisted KWSP - RWPM from Intake to WTP

36	Augmentation of WSS to Kollam Corporation with Njankadavu as source - DER vetting
37	WSS to Thirurangadi Grama Panchayath - Design verification- Sump, Clariflocculator
38	Report on Sump adequacy - CARWSS to Kulathupuzha and adjoining villages
39	Comprehensive WSS to Kuttanadu - DER vetting
40	Surge Analysis - (a) CWSS to Manimala and adjoining villages (b) JICA assisted KWSP - RWPM Intake to WTP - Kozhikode
41	Urgent requirement of Pump at Mudavanmughal Pump house
42	CARWSS to Kulathupuzha - Design checking
43	ARWSS to Kumaramputhur and Payyanedam
44	NRDWP - XIX SLSSC 2013-CWSS to Mukkom, Karassery, Kodyathur and Omassery Panchayats Phase I DER vetting
45	NRDWP - XIX SLSSC 2013 - WSS to Kizhakkoth Grama Panchayat - Source Sustainability - Construction of check dam across Poonoor River vetting
46	NRDWP - XIX SLSSC 2013 - WSS to Madavoor Grama Panchayat - Source Sustainability - Construction of check dam across Poonoor River
47	NRDWP - XIX SLSSC 2013 - WSS to Koduvally Grama Panchayat - Source Sustainability - Construction of check dam across Cherupuzha
48	SLSSC - 2012-CWSS to Thiruvali & adjoining villages - Phase I - Thiruvali village
49	SLSSC 2013- WSS to Thazhekkode & Aliparamba panchayaths Phase II
50	SAARK-Imp: WSS to Kondotty & Nediyrrippu Panchayats
51	Design of 4.5 m height RCC weir across Kariankode River for the WSS to Naval Academy Ezhimala, WSS to Kayyur Cheemeni Hosdurg Taluk of Kasargod district

52	NRDWP - Augmentation of ARWSS to Ayarkunnam, Kooropada and Pampady panchayaths in Kottayam - 12 MLD WTP at Aramanoor
53	WSS to Manarkad - 10 LL OHSR at Vadavathoor
54	ARWSS to Mylom, Thalavoor & Pidavoor - 6.6 LL OHSR at Akkavila
55	CWSS to Thariyodu, Pozhuthana, Kottathara, Vengappally in Wayanad District - 8 MLD WTP
56	Improvements of WSS to Kuttanad - 4.5 LL OHSR at Thakazhy
57	WSS to Edavetty Panchayath in Idukki district - 9 m dia well cum pump house
58	CWSS to Haripad and adjoining 10 Panchayaths - 50 MLD Water Treatment Plant at Pallipad
59	WSS to Kavannur village - 8m dia well cum pump house
60	RWSS to Kalliyoor and Venganoor grama panchayath - 6.2 LL OHSR at Mukkola, 18 LL OHSR at Azhakulam
61	CWSS to Parassala & adjoining village - 2.4 MLD Water treatment plant at Vandichira
62	Augmentation of Pavaratty regional WSS in Palakkad & Thrissur panchayaths 1377 m ³ /hr (3 MLD) plate settler type WTP at Mudavannurkunnu
63	WSS to Manoorkara, Veeranakavu & Perumkulam villages - Intake well and weir at Aniyilakadavu
64	Source adequacy study for WSS to Kalluvathukkal, Paripally and Velinalloor villages
65	RWSS to Pudukkad, Parappukkara - 250 m ³ /hr capacity WTP at Puthukkad
66	UWSS to Kottayam Municipality - Pipe line bridge for 1000mm MS pipe across Puthanangadi thodu
67	CWS to Pallikkal & Madavoor Panchayath - Construction of Weirs across Ithikkara River - Design of 2 weirs

68	SLSSC - 2013 - WSS to Velavannur and Kalpakanchery Panchayath - Enhancing Capacity of Ongoing WSS to Thirunavaya and adjoining Villages - 3.90 LL OHSR at Athiramala - Design verification
69	NRDWP - WSS to Thalayolaparambu Panchayath - 2.00LL OHSR - Verification of Design
70	WSS to Guruvayoor and Chavakkad municipalities - design of 5LL sump at Guruvayoor Devaswom compound
71	CWSS to Mala and Kodungallur - design renovation and rehabilitation of head works at Vynthala
72	CWSS to Ettumanoor and adjoining villages in Kottayam district - design of 9LL OHSR at Aymanam
73	Augmentation of Regional WSS covering 10 panchayaths in Palakkad and Thrissur districts - package I - design of 12m diameter well cum pump house.
74	Improvements of RWSS to Kottankara Panchayath in Kundara LAC - design of 3 LL OH tank at Kodanvila Junction
75	Appraisal report on necessity of WSS to Ponnani municipality and adjoining nine grama panchayaths.
76	Source inspection report of WSS to Koyilandi and Payyoli in Kozhikkode
77	NRDWP - 20B - RWSS to T.V. Puram Panchayath (Vaikom Part Villlage) Kottayam district - design of 4.2 LL OHSR at Cherikkal. (Chemmanathukara zone)
78	NRDWP - WSS to Muttom & Karimkunnam Panchayath in Idukki District (Phase I) - Package II - Design of 8 MLD WTP & 5.2 LL Clear Water Sump and allied works at Perumattom.
79	NABARD - WSS to Mallappally, Anicadu and Kottangal Panchayath - Phase I - Design of 9m diamter intake well cum pump house near Kozhimannilkadavu.
80	RWSS to Thrikkovilvattom and Nedumpana - design of 2 LL OHSR at Kureepally
81	WSS to Mallappally Anicadu & Kottangal - Design of 10 MLD Water Treatment Plant at Pulikkamala

82	NRDWP - WSS Mulakkuzha and Venmony panchayaths - design of 10 MLD water treatment plant at Nikurupuram
83	KWA - Jalanidhi - rehabilitation of WSS to Urakam, Vengara and Parappur panchayaths - design of 450m ³ /hr capacity plate settler/sludge blanket clarifier type water treatment plant and design of new master 3000m ³ capacity OHSR
84	RWSS to Enmakaje and adjoining villages in Kasargod Taluk of Kasargod district for Kasargod development package - EIA report of 4m height RCC weir across Shiriya river at Adkasthala
85	Draft Engineering Reports of i) Karadka and Kumbadeje Grama Panchayath in Kasargod district ii) Thrikaripur and adjoining 6 panchayaths in Kasargod and Kannur district iii) WSS to Neleswaram, Kanjangad Municipality and Karinthalam panchayath in Kasargod district iv) Augmentation of WSS to Kottakkal Municipality Edarikkode and Parappur (part) panchayath
	<u>Thiruvananthapuram Region</u>
86	Augmentation of UWSS to Thiruvalla & Changanassery Municipalities and adjoining Panchayaths viz. Thiruvandoor & Kutoor- Phase I- Production Components - PER
87	Providing sewage facility to Poursamithi road near Chakkai ITI, Pettah in Thiruvananthapuram - Report
88	Providing water supply distribution system to Life Science Park, Thonnakal - Survey
89	CRWSS to Nedumpuram, Niranam, Kadapra and Peringara GPs- Phase II - design of distribution network - PER
90	SAGY- CWSS to Kottukal & adjoining villages - Survey
91	SAGY - Augmentation of WSS to Anjuthengu & 5 Gramapanchayaths - Survey
92	KIIFB - CWSS to Kulathoor, Karode and Chenkal Panchayaths and adjoining areas - Survey
93	ARWSS to Kulakkada & Pavithreshwaram Panchayaths - Survey

<u>Kozhikode Region</u>	
94	PER for WSS to Kanhangad and adjoining Panchayaths in Kasargod
95	PER for WSS to Trikaripur and adjoining panchayaths in Kasargod
96	PER for WSS to Chokli in Kannur
97	WSS to Kasargod and Chemnad in Kasargod district - DER completed
98	WSS to Mattannur in in Kannur district - DER
99	WSS to Koyilandi in Kozhikode district - Design
100	WSS to Ponnani in Malappuram district - DER
101	WSS to Shornur in Palakkad district - DER
102	WSS to Kozhinjampara in Palakkad district - Design
103	WSS to Kanhangad and adj panchayaths in Kasaragod district - Survey work
104	WSS to Trikaripur and adj panchayaths in Kasaragod district - Survey work
105	WSS to Kasaragod and Chemnad in Kasaragod district - Survey work
106	WSS to Koyilandi in Kozhikode district - Survey work
107	WSS to Ponnani in Malappuram district - Survey work
108	WSS to Irimbliyum Valanchery in Malappuram district - Survey work
<u>Kochi Region</u>	
109	KIIFB - 100 MLD WTP for Thrissur Corporation and adjoining Panchayaths - DER
110	KIIFB - WSS to Chazhur, Thanniam and Anthikkad - Design
111	KIIFB - WSS to Nattika Firka - phase-II - Design
112	AMRUT - WSS to Chevoor-Marathakkara - Design
113	AMRUT - WSS to Guruvayur Municipality and adjoining Panchayaths - Survey work

114	AMRUT - WSS to Corporation of Thrissur-zoning - Survey work
115	KIIFB - WSS to Athirappally -Preliminary design
116	KIIFB -WSS to Mattathur GP -Preliminary design
117	KIIFB - WSS to Thrissur Corporation-20 MLD WTP at Peechi - Preliminary design
118	MLA - WSS to Kunnankulam-Wadakkanchery AC - Survey work
119	SAGY - WSS to Kottuvally GP - Survey work and Design
120	SAGY - WSS Udayamperur GP - Survey work
121	AMRUT - Replacement old damaged pipeline along Pandit Karuppan road size 160 mm PVC 4400 m in Kochi Corporation - DER
122	AMRUT - Replacement of old damaged pipe line from Valanjambalam to Ravipuram-size 160mm & 110mm PVC length , 1000 m - DER
123	AMRUT - Replacement of old damaged pipe line along Konthuruthy branch road, size- 300 mm DI, length- 840 m - DER
124	AMRUT - Zoning by renovation of existing Kadavanthra oh tank 22 Lakhs Litre capacity including laying pumping main from Thammanam to Kadavanthra, size- 500mm, length- 4 km - DER
125	AMRUT - Zoning by constructing new sump of capacity of 2.5 Lakhs and OH tank 17 Lakh Litres at Pachalam - DER
126	AMRUT - Laying transmission main from Kathrikkadavu to Pachalam 500 mm DI , length-4 km - DER
127	AMRUT - Edakochi south second reach-Laying pipe line (size-450 mm) - DER
128	AMRUT - Laying pumping main 500mm DI pipe from JNNURM treatment plant Maradu to Thammanam pump house for additional pumping of water (up to 18 mld) to Kochi city - DER

129	AMRUT - Laying rider line from Kathrikkadavu to Elamkulam Chettichira, Ponnuranni areas& distribution lines in Chakkarapparambu Chalikkavattom areas - DER
130	AMRUT - Construction of 2 Lakh Litre sump, pump house and allied electrical works and 15 Lakh Litre capacity OH tank at Vadathode Kunnumpuram - DER
131	AMRUT - Construction of OH tank of 10 Lakh Litre capacity at Thevara - DER
132	WSS to Arakkuzha - Palakkuzha - Design
133	WSS to Inchathotty - Design
134	KIIFB - WSS to Kadamakkudy GP - Design
135	KIIFB - WSS to Varappuzha GP - Design
136	KIIFB - 20 MLD WTP for Thodupuzha Municipality and adjoining GP - DER
137	NRDWP - WSS Muttam-Karinkunnam - Design
138	WSS to Mavelikkara Municipality and adjoining GP - PER
139	State - WSS Pandavanpara in Changannur Municipality - Design

CHAPTER VII

COMPUTERISATION AND IT-INITIATIVES

During 2016 -2017 Kerala Water Authority brought in 4,00,000 more connections to Centralized Spot Billing System - e-Abacus. Achieving 93% of Consumer Population (ie more than 1960630 out of 21,00,000 Water Connections). Development and Integration of State Service Delivery Gateway (SSDG) project, formulated under the National e-Governance Plan (NeGP), is to fulfill the vision of providing easy and convenient services to the citizens through remote access primarily through Common Service Centers (CSCs), thereby enabling the State Portal by implementing the key components State Portal viz. SSDG, electronic Form (e-Forms), Application and Computing Infrastructure was completed.

KWA integrated 5 new services to SSDG Portal. Also Mobile apps for service delivery developed as a part of SSDG Project which is a major foot step in MGovernance. KWA revamped its website to up to date standard and cutting edge technology. KWA developed software for monitoring of consumer complaints which has a provision for consumers to register complaints online. The speciality of the system is that higher management can easily give immediate direction related to complaint redressal to the concerned official and they can involve if there is any delay in the process and can have a chat like discussion in each case separately. Kerala Water Authority integrated with SWIFT-Single Window Interface for Fast and Transparent clearance, an initiative by KSIDC to deliver fast services to entrepreneurs while starting a new industry. KWA bagged the following awards during 2016-17 for its achievements in e-Governance.

- 1 **SKOCH Order Of Merit National Award** for e-Governance for implementation of Janamithra- The Consumer Redressal and Complaint Monitoring Software of KWA.
2. **SKOCH Order Of Merit National Award** for e-Governance for implementation of LIMS-The Laboratory Information Management System.
- 3 **SKOCH Order Of Merit National Award** for e-Governance for implementation of MARCH-HR BILL Monitoring Software of KWA.
4. **SKOCH Order Of Merit National Award** for e-Governance for implementation of O&M Bill Monitoring Software of KWA.

CHAPTER -VIII
FINANCIAL PERFORMANCE

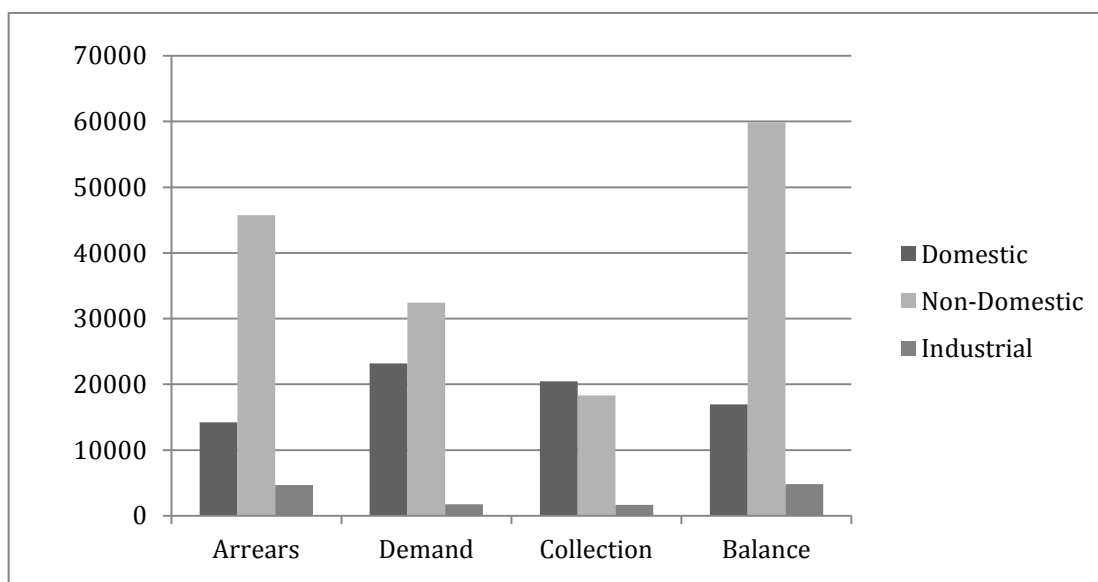
- 5.1 The main source of finance for Kerala Water Authority are revenue from water charges, grants and loans received from Government of Kerala, Government of India and Loans taken from Financial Institutions like Banks. The Government of Kerala provides funds in the budget in the form of loans and grants to undertake drinking water projects and various other works.
- 5.2 The Cash Flow Statement of Kerala Water Authority for the year 2016-17 is given below.

KERALA WATER AUTHORITY
CASH FLOW STATEMENT

Particulars	CASH FLOW FOR THE YEAR		
	01 April 2016 to 31st Mar 2017		
	Capital	Revenue	Total
A. Opening Balance as on 01.04.2016			
State Bank of Travancore	2,323.63	2,267.46	4,591.09
District Treasury	11,036.03	2,000.00	13,036.03
Federal Bank, Pattam	1,675.05		1,675.05
State Bank of India, Althara branch	2,429.10		2,429.10
Special Treasury Savings Bank (for centrally sponsored)	0.03		0.03
OD available limit (Revenue balance)	-	1,668.50	1,668.50
SBT-Overdraft Account available limit (Capital balance)	5,633.07		5,633.07
TOTAL OPENING BALANCE	23,096.91	5,935.96	29,032.87
B. Add : Receipts			
1. From Government of Kerala			
a. Plan - Grant	35,981.11		35,981.11
b. Plan - Grant - NABARD	10,291.33		10,291.33
c. Plan - Loan			-
d. Plan - Loan - IBIC	5,117.00		5,117.00
e. Non - Plan - Grant		29,655.74	29,655.74
2. From Government of India			-
a. For NRDWP	6,161.69	1,046.52	7,208.21
b. For AUWSP / TM / PMGY / Other schemes (support)	313.51		313.51
c. Plan - Grant - Arsenic and fluoride	1,973.00		1,973.00
3. Collection of water charges & Other capital receipts			
a. Direct- from LSGD		9,448.02	9,448.02
b. From NOP a/c of Divisions		44,575.29	44,575.29
4. For Deposit Works & Other receipts	25,602.45	874.12	26,476.57
5 Loans from Institutions	4,963.16		4,963.16
TOTAL RECEIPTS	90,403.25	85,599.69	176,002.94
C. Less : Payments			
1. For Revenue Expenditure			
a. For Salary, Guarantee commission & Other estt. expenses		73,714.40	73,714.40
b. For Power Charges		1,141.85	1,141.85
c. For O & M		5,027.05	5,027.05
d. DRW (revenue)		3,089.60	3,089.60
2. Repayment of Loan / Interest	12,250.28	3,641.74	15,892.02
3. Advance to Contractors	4,963.16		4,963.16
4. Funds for Capital Works			
a. State Plan	22,625.12		22,625.12
b. State Plan - IBIC	5,520.99		5,520.99
c. Centrally Sponsored Scheme	3,873.64		3,873.64
d. Outside State Plan- Thrippunithura WSS	-		-
e. TRP & others	-		-
f. Others	15,248.38		15,248.38
5. Investment for Pension and PF		255.26	255.26
6. Share debit transferred from Revenue to Capital	1,349.74	(1,349.74)	-
TOTAL PAYMENTS	65,831.31	85,520.16	151,351.47
Amount transferred from deposit works for payment made to	(1,796.60)	1,796.60	-
Opening Balance + Receipts- Payments	45,872.25	7,812.10	53,684.35
D. Closing Balance as on 31.03.2017			
State Bank of Travancore	21,896.88		21,896.88
District Treasury	19,394.59		19,394.59
Federal Bank, Pattam	1,674.06		1,674.06
State Bank of India, Althara branch	4,402.59		4,402.59
Special Treasury Savings Bank a/c (centrally sponsored)	1,773.66		1,773.66
Federal bank SB a/c (rev)	487.08		487.08
SBT OD account -own fund (capital)	4,055.49		4,055.49
TOTAL CLOSING BALANCE	53,684.35	-	53,684.35

5.3 Consolidated statement showing the Demand, Collection and Balance of water charges from the domestic, non-domestic and industrial consumers for the year 2016-17.

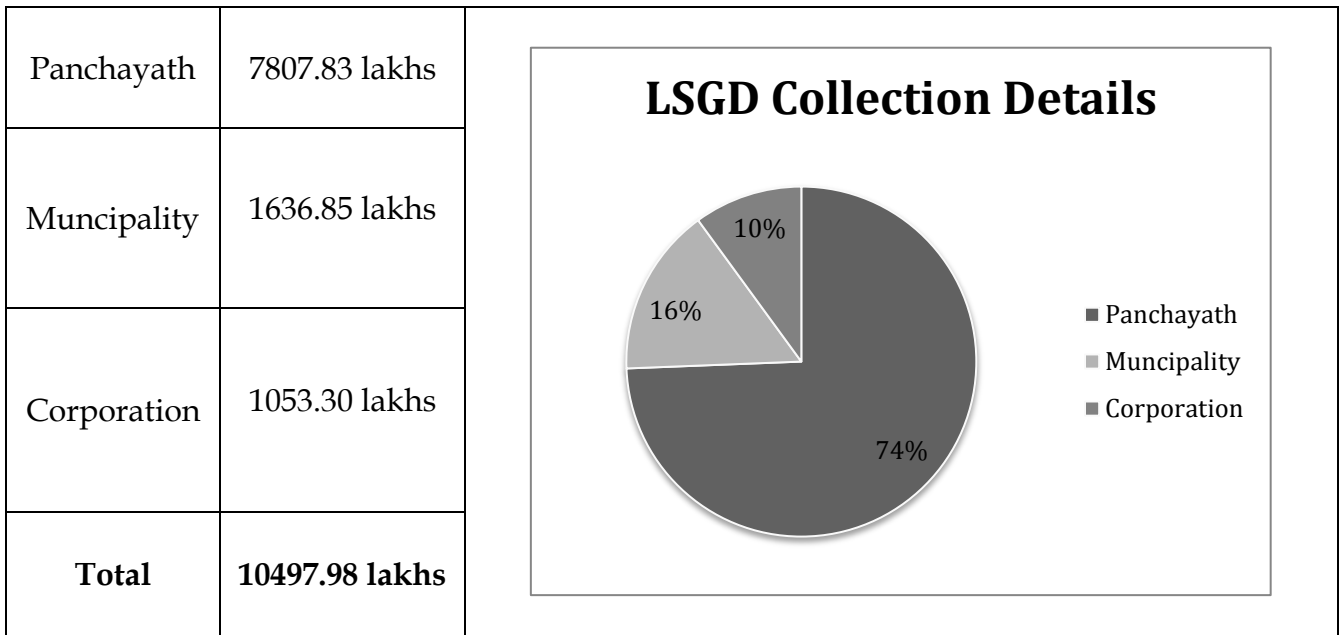
Category	Arrears as on 31.3.2016	Cumulative demand for 2016-17	Collection for 2016-17	Balance outstanding as on 31.3.2017	Percentage of collection in terms of demand for 2016-17
Domestic	14215.52	23213.52	20482.4	16946.64	88.23%
Non-Domestic	45747.44	32449.37	18308.2	59888.61	56.42%
Industrial	4674.68	1765.82	1634.17	4806.33	92.54%
Total	64637.64	57428.71	40424.77	81641.58	70.39%



5.3 (a) Arrear of revenue at the beginning of the year 2016-17 - Rs.65358.23 lakhs

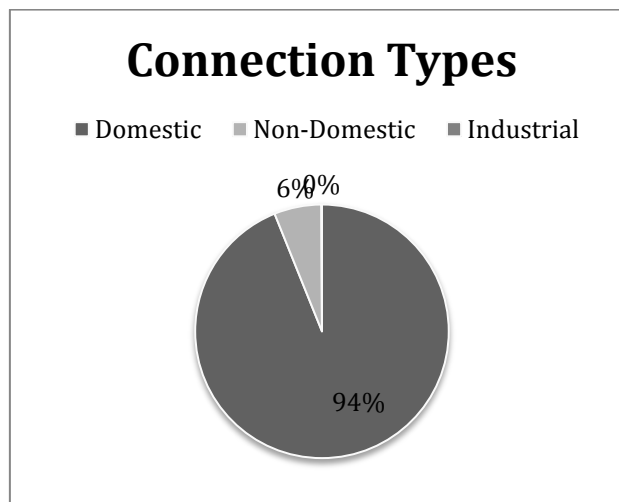
(b) Arrear of revenue at the end of the year 2016-17 - Rs.80105.23 lakhs

5.4. Details of collection from LSGD from 2016-17



5.5 a. Total number of connections

Domestic	1944351 nos
Non-Domestic	124639 nos
Industrial	1604 nos



b. Total number of sewerage connections

- 6082 nos

c. Details of adalath conducting during the year 2016-17

- Nil

d. Important campaigns like advertisement through dailies and local channels, mike announcement, bit notice etc were conducted for improving revenue collection during 2016-17 .

f. Task force meetings were conducted at Division level and Circle level.

g. Write off / losses due to waivers of revenue during the year 2016-17 – **Rs.3549.55 lakhs.**

5.6 To increase the demand/collection and reduce the distribution loss KWA has taken the following steps;

1. To ensure 100% billing, the number of reading to be taken by a Meter Reader in Urban/Rural areas have been specified.
2. KWA has entered into an agreement with 'Kudumbasree' to engage Kudumbasree members for meter reading/ billing in places where sufficient employees of KWA are not available.
3. In order to increase the revenue collection and for clearing the arrears, steps were taken to disconnect the water connection of all major defaulters and revenue recovery proceedings were initiated.
4. For detecting water theft, 'Anti Water theft squads' were engaged in Kochi and Thiruvananthapuram cities.
5. Special squads were formed in Divisions to detect water theft.
6. Whenever water theft is detected, water connection is disconnected and legal proceedings initiated against the consumer involved.
7. 'Leak detection and surveillance unit' is functioning in Thiruvananthapuram city for detection of water leakage.
8. Actions were taken to control leakage in distribution lines by engaging KWA approved plumbers and through Annual Maintenance Contract.
9. 'Blue Brigade' was also engaged for rectification of leakage in distribution lines immediately.
10. Steps have been taken to buy modern leak detection equipments to all Divisions using the funds provided under JICA Project

Chapter IX

Establishment

The details related to Establishment Wing for the year 2016 - 2017 is detailed below.

Head Office	1
Regional Office	3
JICA Project Chief Engineer's Office	1
PPD & WASCON	1
Circle Offices	17
Division Offices	49
Sub Division Offices	103
Section Offices	244
TOTAL	417

I. List of Circle Offices

1. PH Circle, Thiruvananthapuram
2. PH Circle, Kollam
3. PH Circle, Kottayam
4. PH Circle, Pathanamthitta
5. PH Circle, Kochi
6. JNNURM Project Circle, Kochi
7. PH Circle, Alappuzha
8. PH Circle, Muvattupuzha
9. PH Circle, Thrissur
10. State Referral Institute, Nettoor, Kochi
11. PH Circle, Palakkad
12. PH Circle, Malappuram
13. PH Circle, Kozhikode
14. PH Circle, Kannur
15. PPD Regional Office Kochi
16. PPD Regional Office Thiruvananthapuram
17. PPD Regional Office Kozhikode

II. List of Division Offices

1. PH Division, North, Thiruvananthapuram
2. PH Division, South, Thiruvananthapuram
3. Quality Control Division, Thiruvananthapuram
4. Head Works Division, Aruvikkara
5. WS Division, Neyyattinkara

6. Sewerage Division, Pattoor
7. WS Division, Attingal
8. Project Division, Thiruvananthapuram
9. JNNURM Division, Thiruvananthapuram
10. PH Division, Kollam
11. Project Division, Kollam
12. PH Division, Kottarakkara
13. PH Division, Pathanamthitta
14. Project Division, Adoor
15. PH Division, Kottayam
16. Project Division, Kottayam
17. PH Division, Kaduthuruthy
18. PH Division, Thiruvalla
19. PH Division, Alappuzha
20. Project Division, Alappuzha
21. PH Division, Moovattupuzha
22. PH Division, Thodupuzha
23. Project Division, Kattappana
24. Project Division, Piravom
25. PH Division, Aluva
26. PH Division, Kochi-16
27. Project Division, Perumbavoor
28. WS Division, Kochi-18
29. JNNURM Division, Kochi
30. Quality Control Division, Kochi
31. PH Division, Thrissur
32. Project Division, Nattika
33. PH Division, Irinjalakkuda
34. PH Division, Palakkad
35. PH Division, Shornur
36. Project Division, Palakkad
37. PH Division, Malappuram
38. Project Division, Malappuram
39. PH Division, Edappal
40. PH Division, Kozhikkodu
41. Quality Control Division, Kozhikkodu
42. PH Division, Sulthan Bathery
43. Project Division, Kozhikodu
44. PH Division, Vada kara
45. Project Division, Kannur
46. PH Division, Kannur
47. Project Division, Mattannur
48. PH Division, Kasaragod
49. Kozhikode KSUDP Sewerage Division

III Number of promotions

Sl.No	Designation	Nos
1	Executive Engineer to Superintending Engineer	09
2	Head Clerk to Junior Superintendent	30
3	Superintending Engineer to Chief Engineer	01
4	Lower Division Typist to Upper Division Typist	03
5	Senior Superintendent/ Revenue Officer to Accounts Officer/ Administrative Officer	10
6	Divisional Accounts Officer to Senior Superintendent/Revenue Officer	11
7	Junior Superintendent to Divisional Accounts Officer	21
8	Plumbing Inspector to Senior Plumbing Inspector	02
9	Plumber to Plumbing Inspector	03
10	Meter Reader to Meter Inspector	10
11	Selection Grade Typist to Fair Copy Superintendent	06
12	Assistant Executive Engineer to Executive Engineer	11
13	Assistant Engineer to Assistant Executive Engineer	17
14	Surveyor Grade-I to Head Surveyor	06
15	Surveyor Grade-II to Surveyor Grade I	09
16	Draftsman Grade-I to Assistant Engineer	46
17	Overseer Grade-III to Draftsman Grade-II	64
18	Administrative Officer to Internal Auditor	04
19	Fitter to Head Fitter	02
20	Head Operator to Mechanical Superintendent	01
21	LD Clerk to UD Clerk	11
22	UD Typist to Selection Grade Typist	05
23	Last Grade to Meter Reader (By transfer)	22
24	Selection Grade Driver to Vehicle Inspector	01

IV Appointment as recommended by Kerala Public Service Commission

Sl.No.	Designation	Nos.
1	Meter Reader	21
2	Worker/Unskilled Worker	15
3	Tracer/Overseer Gr III	139
4	D/man Gr II	39
5	D/man Gr I	74
6	Legal Assistant	01

V Staff strength of Kerala Water Authority

1	Total employee strength of Kerala Water Authority	8797
2	No. of employees working on contract basis	02
3	No. of employees working on deputation	04
4	Dismissals during the year	Nil
5	Disciplinary proceedings against employees	38

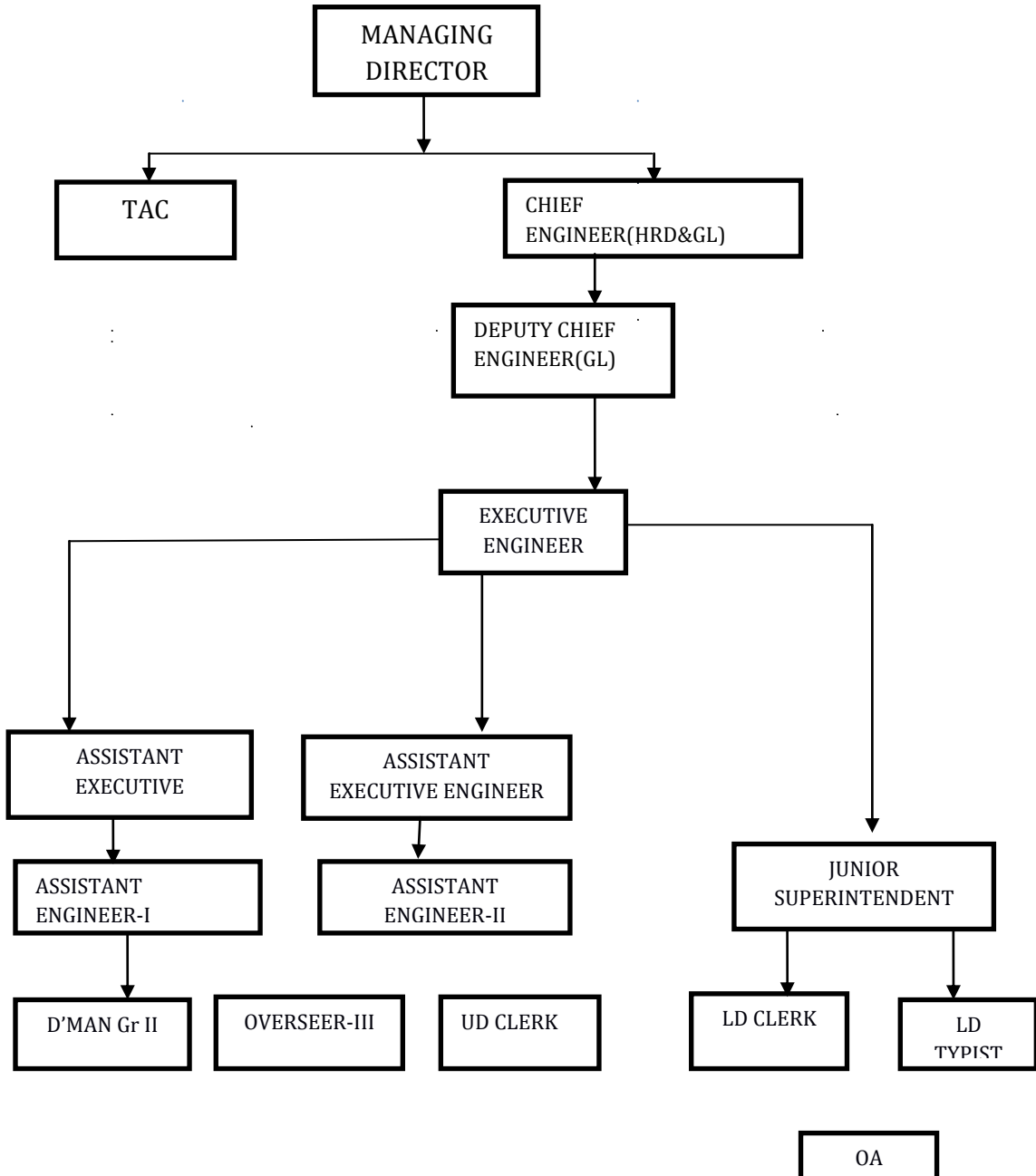
VI Retirement during the year

a)	Junior Superintendent	02
b)	Head Clerk	02
c)	Upper Division Clerk	01
d)	Chief Engineer	01
e)	Worker/Unskilled Worker	15
f)	Executive Engineer	07
g)	Assistant Executive Engineer	05
h)	Head Surveyor	06
i)	Surveyor Gr I	04
j)	Typist	07
k)	Internal Auditor	03
l)	Accounts Officer	08
m)	Senior Superintendent/Revenue Officer	02
n)	Divisional Accounts Officer	01
o)	Tracer/Overseer Gr III	02
p)	Vehicle Inspector	02
q)	Driver	07
r)	Plumber	05
s)	Fitter	03
t)	Meter Reader	05
u)	Meter Inspector	10
v)	D/man Gr I	21
w)	D/man Gr II	01
x)	Operator	154

Chapter-X

TRAINING ACTIVITIES

(1) ORGANISATIONAL CHART OF TRAINING CENTRE (2016-2017)



II .REVIEW OF TRAINING ACTIVITIES DURING 2016-2017

a. Details of In House trainings, Workshops, Seminars, External Trainings and M-Tech programmes conducted during 2016-2017 are shown in Annexure 1 i.e., from Tables 1 to 7

A total of 2466 KWA officials were trained in the in house training programmes during 2016-2017 as per Table 1 & 2. . Also 11 workshops/Seminars were conducted during the year (Table 3). During the year, 47 persons were given training through the CPHEEO sponsored refresher courses at various States.(Details attached in table 4). 37 Officers were sent for attending the trainings conducted by external agencies outside the State as detailed in Table 5. We have also sent 33 officers for attending programmes conducted by other agencies within the State as detailed in Table 6. Also 6 officers were sent for doing M-Tech programme. Thus in total 3018 employees were given training through 187 programmes.

b. Financial Performance

The plan fund available for Training, Quality Control, Research and Development is Rs.100 lakhs as per budget provision 2016-2017. The total expenditure incurred up to March 2017 for training activities is Rs. 42,68,258/- .This is excluding the TA and DA paid for outside trainings and in house trainings which were disbursed from the respective offices to which the participants belong. This would come to approximately Rs. 42 lakhs, which can be booked under the Training head 3461. Thus the total expenditure for the year comes to Rs. 84.7 lakhs approximately.

Reimbursement claim for M-Tech tuition fees and Exam fees during the year 2016-17 was Rs. 5,52,000/-. In addition to this, during the last year, we have generated an income of Rs. 18,52,291/- from external agencies both private and Government, as rent for Training halls and hostel rooms . Of which an amount of Rs. 1,80,200/- is pending as arrears from various government agencies (ASAP mission) and addressed them for clearing the dues at the earliest.

Table 1. Details of in house trainings conducted as per TrainingCalender 2016-2017

Sl. No.	Title of Course	No of Batches proposed	No of Batches conducted	No.of Participants proposed	No of Participants attended
1	Training on computerised Net Work Design(EPANET)	1	1	25	26
2	Training on e-Abacus ,Water Supply Act, Regulations and water connections	2	1	50	26

3	Induction Level Trg to Overseers /D'man	1	3	35	107
4	Training on Pipe laying and Testing	1	1	35	31
6	Training on Communication skill and dealing with Public	1	1	35	29
7	Training Course on AutoCAD	2	1	60	27
8	Estimation of Electrical and Mechanical Items	1	1	30	36
9	Training on Yoga & Meditation	1	1	16	22
10	Total Quality Management Sponsored by CPHEEO	2	60	2	39
11	Training on Legal Aspects & Disciplinary Proceedings	1	1	30	28
12	Refresher course to Last Grade Employees	1	1	35	33
13	Pension Calculation	1	1	30	26
14	Training on Right to Information Act	1	1	30	30
15	Works & Fixed Asset Accounting System, Preparation of work, Abstract & Monthly Accounting System	1	1	35	28
16	Training on Preparation of TA Bill and Calculating Time Bound Higher Grade	2	1	60	38
17	Bill Audit	1	1	35	49
18	Retirement Planning	1	1	35	40
19	Field Training on Total station	4	6	40	57

20	Occupational Safety and Health Hazards	1	1	30	28
21	Training Course on Accounting with Tally	2	1	60	32
22	Induction Level Training to Meter Readers	2	1	70	34
23	Refresher to Fitters	2	1	60	20
24	Training Course on Estimation with DSR	1	9	30	308
25	Induction Level Training to Typists	2	1	70	28
26	Workshop on Energy Conservation and savings at Various Pump houses	3	3	60	63
27	Handling of Chlorine and Breathing Apparatus	4	4	100	96
28	Adoption of Price Software	4	3	120	91
29	Preparation of Project Report	1	1	30	35
30	NRW Management & Leak Detection Methods	1	1	35	24
31	Training on Sewer Net Work Design	1	1	30	26
32	Measurement and Preparation Of Bills	2	1	70	21
33	Jalayatra - Field Visit to WTP & Pump Houses	2	1	30	17
34	Training on Operation and Maintenance of Pumps and Motors	1	1	30	26
35	Training Course on Basic Structural Awareness	1	1	30	18

36	Court Procedures	1	1	35	26
37	Computer Awareness and software application -UBUNTU	2	1	30	23
38	Computer Awareness and software application -DDFS	2	1	30	14
39	Training on Networking	1	1	30	27
40	Refresher Course to Meter Readers	1	1	30	46
	Total	62	120	1628	1675

Table 2. Training Outside as per Training Calendar 2016-2017

Sl .No	Name of Training	No of Batches conducted	Venue	No of Participants attended
1	Training on Virtual IT Cadre	2	CWEd	29
2	National Pension System	10	CWEd	384
3	Introduction to GIS	1	CWEd	28
4	Orientation to Overseers/Dman	3	CWEd	118
5	Induction level training & training on Autocad for Surveyors in PPD	1	CWEd	23
6	Training on Fixation of Pay Revision	2	CWEd	90
7	Bharana Bhasha Mathrubhasha	1	CWEd	26
8	Malayalam Typing	2	CWEd	60
9	E-tendering	1	CWEd	33
	Total	23		791

Table 3. Details of Workshops/Seminars

Sl. No	Name of Workshop	No of Batches	Venue	No of Participants
1	Workshop on NIT Modification	2	CWEd	72
2	Workshop on Preparation of Slip 2016-17 and Formulate strategies for the Mission period under AMRUT	1	CWEd	62
3	Workshop on Water Scarcity Mitigation works and Revenue Improvement Resources	1	CWEd	81
4	Workshop on various matters related to KWA- Review by MD	1	CWEd	21
5	Workshop on various matters related to KWA- Meeting of Hon'ble Minister	1	CWEd	28
6	Workshop on Rules and Regulations governing service connections-stream lining and standardising procedures	1	CWEd	31
7	Workshop on Revenue	1	CWEd	39
8	Workshop on Implementation of KIIFB & AMRUT Projects	1	CWEd	47
9	Workshop on refinement of Monitoring & Evaluation indicators SDC	1	CWEd	24
10	Workshop on Discussion and Presentation with ADB Consultants	1	CWEd	24
	Total	11		429

Table 4. CPHEEO sponsored Outside state trainings

Sl. No	Name of Course	Conducted by	No of Officers sponsored
1	Pump & Pumping machinery for PHE Jobs	IPHE, Kolkatta	16
2	Structural design on WTP and other related structures	VNIT Nagpur	6
3	Computer Aided Design of Pipe lines & Pipe networks	VNIT Nagpur	6
4	Treatment of Arsenic Iron & Fluoride in drinking water	IPHE, Kolkatta	13
5	WTP Design	VNIT Nagpur	6
	Total		47

Table 5. Outside State Trainings By Various External Agencies

Sl.No	Name of Course	Conducted by	No of officers sponsored
1	Workshop on water treatment and water management today and tomorrow	ICW Group, Mumbai	5
2	Bhuvan geoportal training	National Remote Sensing centre, Hyderabad (NRSC)	1
3	Training on Preparation of DPR and Tender documents of Sew. Treatment plant	Engineering staff college of India (ESCI)	2

4	Training on Digital surface modeling & watershed modeling using open source GIS	National Water Academy Pune (NWA)	1
5	Training on Capacity Building staff of Communication and capacity development unit under WATSAN Programme at Vivekananda, Kanyakumari, tamilnadu	WATSAN	3
6	Training on Change Management for Achieving continous Water Supply for all Urban areas	ASCI Hyderabad	2
7	Workshop on Water treatment Process Design proposal, drafting & cost estimation	World Wide Buisness Conference (WBC), Delhi	3
8	Training on Project Management using MS Project of primavera software	Engineering staff college of India (ESCI), Hyderabad	4
9	Two days workshop on An Inevitable Modern day Industrial Equipment - Pump	HMG Group (Hotel Abu Sarovar Chennai)	3
10	Risk Management in Procurement contracts at Mumbai	ICW Group, Mumbai	1
11	Emerging Trends in Construction Management	National council for Training and Social Research (NCTSR)	1
12	Workshop on New Strategies in Construction Infrastructure	Business Conferences Delhi	3
13	Training on Application of Geo infomatics	ESCI Hyderabad	2

14	National Seminar cum worksop on Best Practices in Tendering Contract	NLC of India Ltd. Neyveli	2
15	Trg on "Use of Blended Cements and Manufactured sand in Concrete Construction	NCB Hyderabad	4
	Total		37

Table 6. Inside State Training by Various external Agencies

Sl. No.	Name of Course	Conducted by	No of Officers sponsored
1	E- Governance Project Management e (GPM) Program at TVM	IMG Thiruvananthapuram	1
2	Management Devlopment Programme on "Contract Drafting Negotiation and Dispute Management"	HLL Management Academy (HMA)	2
3	KFRI Environment Management	KFRI, Peechi, Thrissur	5
4	Training on "Environmental Impact Assessment Process"	CWRDM	4
5	Training on "Business Analytics for Executives"	Hotel Apollo Dimora, Thampanoor, Thiruvananthapuram	3
6	First Aid Course	Red Cross Society Hall, Thiruvananthapuram	2

7	First Aid Course	Red Cross Society Hall, Thiruvananthapuram	5
8	WRMTP - Training on "Introduction to application of RS & GIS in WR Management	CWRDM	2
9	WRMTP - Training Course on Introduction to QGIS QSWAT	CWRDM	3
10	WRMTP - Introduction to advanced Mapping Techniques for WR Management	CWRDM	4
11	Mentoring for Executives	Smart Green Management consulting Pvt.ltd	2
	Total		33

Table 7: M.Tech Program

Sl No.	Name of course	No. of seats proposed	No. of participants attended
1	M.Tech Govt. Colleges (College of Engineering, Trivandrum & Govt. Engineering College Thrissur, Bartenhill,Trivandrum)	6	6
2	CPHEEO sponsored	0	0

CHAPTER XI

National Pension System Cell

NPS (National Pension System) is a defined contribution based Pension Scheme launched by Government of India with the following objectives

- To provide old age income
- Reasonable market based returns over long run
- Extending old age security coverage to all citizens

It is based on a unique Permanent Retirement Account Number (PRAN) which is allotted to each Subscriber upon joining NPS.

The Government of India in exercise of their executive powers adopted 'National Pension System' (NPS) based on defined contributions in respect of all new entrants to Central Government services, excepting the Armed Forces, with effect from 1st January 2004. Most of the State Governments have since notified a similar pension system for their new entrants. NPS accumulates savings into subscribers PRA while he is working and use the accumulations at retirement to procure a pension for the rest of his life.

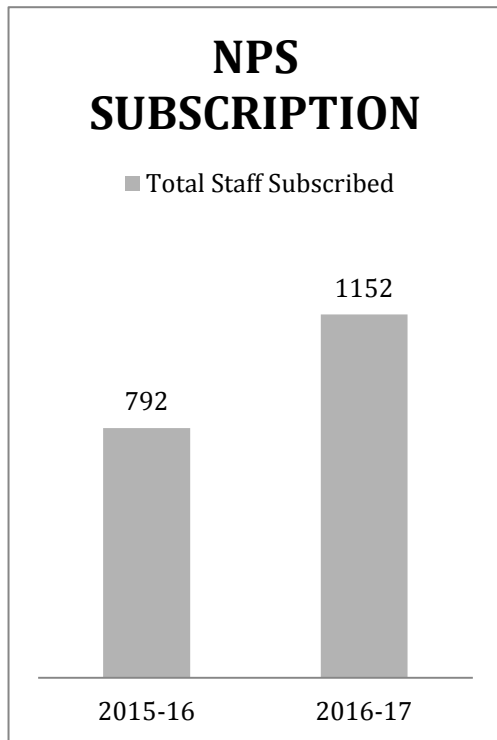
The Pension Fund Regulatory & Development Authority Act was passed on 19th September, 2013 and the same was notified on 1st February, 2014. PFRDA is regulating NPS, subscribed by employees of Govt. of India, State Governments and by employees of private institutions/organizations & unorganized sectors.

Government of Kerala vide G.O.(P) 20/ 2013/Fin dated 07-01-2013 decided in principle that National Pension system shall be introduced with effect from 01.04.2013 which shall be applicable to all appointments made thereafter.

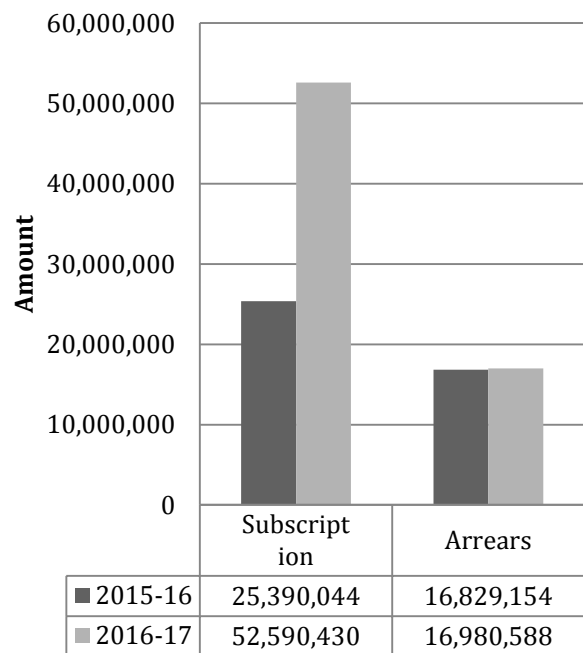
Vide Office Order No. KWA/JB/E20/O&M/7307/2006 dated 18/04/2015 NPS Cell was constituted in Head office of KWA for the implementation of NPS. In response to the application submitted to the Finance Wing, Government of Kerala for operationalization of NPS in KWA, the NSDL e-Governance Infrastructure Ltd vide Letter No: CT/SS/VH/MT/201531655 dated 7-5-2015 informed that the registration of KWA in the CRA system of NPS is completed. The deduction of NPS subscriptions was effected from the salary of June 2015 and the recovery of subscription for the backlog period were started from salary of August 2015 onwards. The centralized mode of payment is executed in KWA for NPS . All account rendering units of KWA forward the details of deduction of NPS subscriptions done in their offices through the NPS Recovery Schedule(PA 30) to NPS Cell of Head Office for payment. Based on this KWA also contribute matching share of subscription. For the year 2016-17, KWA remitted Rs. 6,95,71,018/- for NPS purpose which includes Rs. 5,25,90,430/- as regular subscription and Rs. 1,69,80,588/- as backlog arrears. . During the year 2016-17, 360 new subscribers were registered for NPS from Kerala Water Authority.

NPS SUBSCRIPTION (STAFF NUMBERS AND PREMIUM AMOUNT)

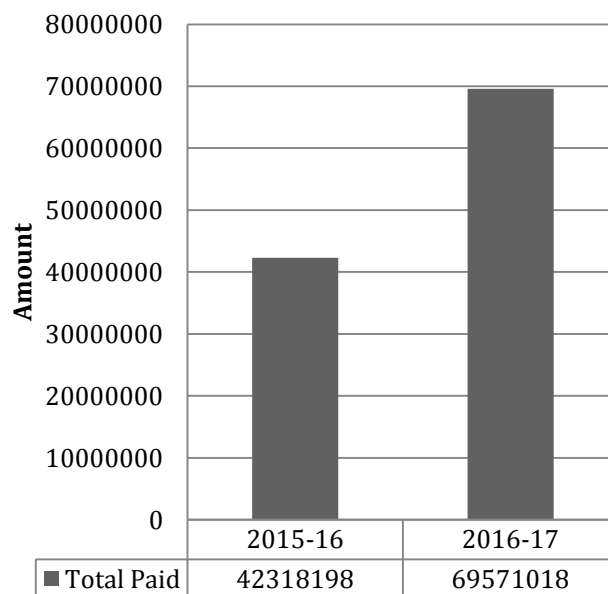
	2015-16	2016-17
Total Staff Subscribed	792	1152
New Staff Added	792	360
Amount	Rs. 253,90,044	Rs. 5,25,90,430
Arrears	Rs. 168,29,154	Rs. 1,69,80,588
Total Paid	Rs. 423,18,198	Rs. 6,95,71,018



Amount paid - Regular and arrears



Total Paid



Chapter XII

IMPLEMENTATION OF RIGHT TO INFORMATION ACT-2005

Right To Information Act is the Act which gives the right to all people to know the public information, passed by the great Indian Parliament on 2005. This Act is one of the mile stones in the history of India. This rule was implemented all over India on the same year.

The Kerala Water Authority took initiative to implement the rule on the same year itself. In this regard the Kerala Water Authority published sufficient orders and circulars for perfect and smooth functioning of Right To Information Act. As per this orders seven officers have been deputed as Public Information Officers in Jala Bhavan, the headquarters of Kerala Water Authority. The Deputy Chief Engineers in all Regional Offices, PA to Superintending Engineer in Circle Offices, Technical Assistant to Executive Engineer in Division offices and Assistant Executive Engineer in Sub Division offices respectively are also deputed as Public Information Officers. In the absence of Public Information Officers, the Assistant Public Information Officers will be the responsible person. The Administrative Officer of Regional Offices, the Administrative Assistant of Circle Offices, the Divisional Accounts Officer of Divisional Offices and all Assistant Engineers under the purview of Sub Divisional Offices are deputed as Assistant Public Information Officers.

The complaints raised by the applicants against the information given, those which are not satisfactory or not within stipulated period will be heard and redressed. Hence an Appellate Authority is required and nominated the Chief Engineer (HRD & GL) is nominated in Jala Bhavan, Chief Engineers in all Regions and Chief Engineer, JICA as Appellate Officers.

**SUO MOTO DISCLOSURE UNDER SECTION 4(1)(b)
REPORTING YEAR: 2016-17**

Sl. No.	Department	No. of Public Authorities	No. of Public Authorities which published the 17 Manuals under Section 4 (1)(b)	No. of Public Authorities which updated the 17 Manuals during the year	No. of Public Authorities which displayed the 17 Manuals Online
(1)	(2)	(3)	(4)	(5)	(6)
1.	KWA	1	1	Nil	1

**DESIGNATION OF PUBLIC INFORMATION OFFICERS/ APPELLATE AUTHORITIES
REPORTING YEAR:2016-17**

Sl.No.	Department	No. of Public Authorities	No. of Public Information Officers Designated	No. of Assistant Public Information Officers Designated	No. of Appellate Authorities Designated
(1)	(2)	(3)	(4)	(5)	(6)
	KWA	1	294	317	27

**DISPOSAL OF INFORMATION REQUESTS BY PUBLIC INFORMATION OFFICERS
REPORTING YEAR 2016-17**

Name of the Department	No. of Requests pending at the end of Last Year	No. of Requests Received during the Year	Total No. of Requests	No. of Requests Disposed	No. of Requests Rejected	No. of Requests deemed to be Refused under Section 7 (2) Received during the Year	% of Cases Access to information Denied
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
KWA	9	4403	4412	4384	20	-	0.45%

INFORMATION REQUESTS REJECTED BY PUBLIC INFORMATION OFFICERS
REPORTING YEAR: 2016-17

Name of the Department	No. of Requests Rejected	No. of Requests Rejected under Section 8	No. of Requests Rejected under Section 9	No. of Requests Rejected under Section 11	No. of Requests Rejected under Section 24	No. of Requests Rejected under Sections (Fee not remitted)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
KWA	41	5	-	-	-	36

DISPOSAL OF FIRST APPEALS BY DESIGNATED APPELLATE AUTHORITIES
REPORTING YEAR: 2016-17

Name of the Department	No. of First Appeals pending with Appellate Authorities on 01.04.2016	No. of First Appeals preferred during the year	No. of First Appeals with Appellate Authorities (2+3)	No. of First Appeals Disposed	No. of First Appeals Rejected	% of First Appeals Rejected	No. of First Appeals pending for more than 45 days
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
KWA	0	131	131	131	0	0	0

PENALTIES IMPOSED & COLLECTED
REPORTING YEAR: 2016-17

Name of the Department	Penalties imposed in previous year pending for collection	Details of Penalties imposed by information Commission under Section 20(1)	Total	Details of Penalties Collected
(1)	(2)	(3)	(4)	(5)
KWA	Nil	1. Rs.5000/- 2. Rs.5000/- 3. Rs.2000/-		1. Remitted at Peermedu sub treasury vide chalan No.64 dated 15/12/2016 2. Remitted at Alappuzha Treasury vide chalan No.163 dated 7/11/2016 3. Remitted at TVM.

DISCIPLINARY ACTION TAKEN AGAINST OFFICERS IN RESPECT OF
ADMINISTRATION OF RTI ACT
REPORTING YEAR: 2016-17

Name of the Department	Details of Disciplinary Action Recommended by information Commission under Section 20(2)	Details of Disciplinary Action Taken based on Recommendation of Information Commission	Other Disciplinary Actions Taken (other than those Recommended by Information Commission)
KWA	Nil	Nil	Nil

SUMMARY COSTS, FEES & CHARGES COLLECTED BY PUBLIC AUTHORITIES
REPORTING YEAR: 2016-17

Name of the Department	Cost Collected Section 4 (4)	Fee Collected Section 6(1)	Fee Collected Section 7 (1)	Fee Collected Section 7(5)	Other charges collected (Specify)	Total Collection
(1)	(2)	(3)	(4)	(5)	(6)	(7)
KWA	1090	15560	8006	9209	260	34125

CHAPTER - XIII

Implementation of Right to Service Act 2012

The Kerala State Right to Service Act, 2012 came into force on 1st November 2012 as per G.O.(P)No.55/2012/P&ARD. Kerala Water Authority implemented the Right to Service Act 2012 on 08.04.2013 onwards. The Act provides effective, time bound redressal of grievance of citizens, delivery of services to the public and making Government servants liable in case of default. Through the introduction of bill, the Government servants are made answerable in terms of their functions, duties commitments and obligations towards the people.

The bill provides two tier appellate system to redress grievances. The bill underlines the duty of the designated officer who on receipt of an application for service will provide it or reject the application within the time limit, counted from the day the application is received. In case of rejection, the officer should justify it in writing.

Section 3 of the Kerala State Right to Service Act, 2012(18 of 2012) empowers, every departments of the Government, Heads of Departments, Local Self Government Institutions and Statutory Bodies to notify in the Gazette, the services, that will be rendered by each of them along with details of stipulated time limit, Designated Officers, First Appellate Authority and the Second Appellate Authority. The Government have decided to notify the services to be rendered by the Kerala Water Authority and the officers in respect of such services as stipulated in the said section.

In connection with the implementation of Right to Service Act in Kerala Water Authority, the Managing Director issued a notification vide No. KWA/JB/E1/9387/2012 Dt: 08/04/2013 in which the designated officers as First Appellate Authority, Second Appellate Authority, and the stipulated time limit in respect of such services were notified

The details of services rendered by the Authority are as follows.

Sl. No.	Service		Stipulated time limit	Designated Officer	1 st Appellate Authority	2 nd Appellate Authority
1	2		3	4	5	6
1.	Providing Water Connection	Urban Area	15 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
		Rural Area	30 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
2.	Sewerage Connection		60 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
3.	Shifting of Domestic Connection		15 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
4.	Disconnection of domestic/non domestic connection (on request of consumer)		15 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
5.	Reconnection of domestic/non domestic connection		15 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
6.	Change of ownership/ changing of category of connection		15 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
7.	Meter reading/ complaint redressal		30 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
8.	Sewerage connection change of ownership		15 days	Assistant Executive Engineer	Executive Engineer	Superintending Engineer
9.	Water sample of private wells quality test (physical and chemical)		10 days	Assistant Executive Engineer	Executive Engineer/ Quality Control Division	Chief Engineer

CHAPTER XIV

COMPLAINT REDRESSAL CENTRE

As part of enhancing customer services, a Complaint Redressal Centre with a toll free number 1800 425 5313 was started functioning in the Head Office, Thiruvananthapuram from 22/3/12 onwards. The complaints/calls related to water supply and drainage from anywhere in Kerala will be attended in this centre. The details of the complaint will be transmitted to the respective Divisions over telephone. A nodal officer was made responsible in each division to attend the complaints and for follow up action of the complaints which are forwarded from the Complaint Redressal Centre. The Technical Assistants of the concerned Divisions are nominated as the nodal officers for attending the complaints. All complaints forwarded from this centre will be entered in a register and action taken are being recorded. The Technical Assistants reports the action taken regarding the complaints which are forwarded to them to the Complaint Redressal Centre in a time bound manner.

The phone numbers to which the complaints are forwarded are listed below:

1. P.H Division, North, Thiruvananthapuram -	0471 2322798	85476 38175
2. P.H Division, South, Thiruvananthapuram -	0471 2321379	85476 38290
3. Head Works Division, Aruvikkara -	0472 2888239	94000 67878
4. W.S Division, Neyyattinkara -	04712223447	85476 38093
5. Sewerage Division, Pattoor -	04712303170	85476 38212
6. W.S Division, Attingal -	04702620574	85476 38355
7. P.H Division, Kollam -	0474 2748857	85476 38530
8. P.H Division, Pathanamthitta -	0468 2222687	85476 38344
9. P.H Division, Alappuzha -	0477 2242372	85476 38221
10. P.H Division, Tiruvalla -	0469 2701267	85476 38241
11. P.H Division, Kottayam -	0481 2563711	85476 38556
12. P.H Division, Kochi -	0484 2360816	85476 38133
13. W.S Division, Kochi -	0484 2394155	85476 38145
14. P.H Division, Aluva -	0484 2626948	85476 38156
15. P.H Division, Muvattupuzha -	0485 2832350	85476 38436
16. P.H Division, Thodupuzha -	04862 222812	85476 38427
17. P.H Division, Thrissur -	0487 2333070	85476 38362
18. P.H Division, Irinjalakuda -	0480 2826608	85476 38374
19. P.H Division, Palakkad -	0491 2545027	85476 38307
20. P.H Division, Shornur -	0466 2223264	85476 38315
21. P.H Division, Kozhikode -	0495 2370095	85476 38211
22. P.H Division, Vadakara -	0496 2512474	85476 38060
23. P.H Division, Malappuram -	0483 2734891	85476 38171
24. P.H Division, Edappal -	0494 2680215	85476 38410
25. P.H Division, Sulthan Bathery -	04936 220422	85476 38495
26. P.H Division, Kannur -	0497 2706837	85476 38273
27. P.H Division, Kasaragod -	04994 256411	85476 38250

ABBREVIATIONS

1.	ADB	Asian Development Bank
2.	ARP	Accelerated Rural Project.
3.	ARWSS	Accelerated Rural Water Supply Scheme.
4.	AS	Administrative Sanction
5.	ASAP	Additional Skill Acquisition Programme
6.	AUWSS	Accelerated Urban Water Supply Scheme.
7.	CPHEEO	Centre for Public Health Engineering & Environmental Organization
8.	CARWSS	Centrally Sponsored Accelerated Rural Water Supply Schemes
9.	CSC	Common Service Center
10.	CW	Clear Water
11.	CWEd	Center For Water Education
12.	CWPM	Clear Water Pumping Main
13.	CWPS	Clear Water Pumping Station
14.	CWSS	Comprehensive Water Supply Scheme.
15.	DER	Detailed Engineering Report.
16.	DRW	Drought Relief Work.
17.	DBA	Data Base Administrator.
18.	EABACUS	Enhanced Advanced Billing, Accounting & Collection Utility System
19.	GIS	Geographic Information System
20.	GoI	Government of India
21.	HUDCO	Housing & Urban Development Corporation.
22.	IMIS	Integrated Management Information System.
23.	IPD	Investigation, Planning and Design.
24.	JICA	Japan International Co-operation Agency
25.	JBIC	Japan Bank for International Cooperation
26.	JNNURM	Jawaharlal Nehru National Urban Renewal Mission
27.	KIIFB	Kerala Infrastructure Investment Fund Board
28.	KWSP	Kerala Water Supply Project
29.	KRWSA	Kerala Rural Water Supply and Sanitation Agency
30.	KSIDC	Kerala State Industrial Development Corporation
31.	KSUDP	Kerala Sustainable Urban Development Project
32.	LAC	Legislative Assembly Constituency
33.	LAC ADF	Legislative Assembly Constituency Asset Development Fund
34.	LCS	Low Cost Sanitation.
35.	LIC	Life Insurance Corporation
36.	LSGD	Local Self Government Department
37.	MARCH	Monitoring Accounting & Reporting By Centralized HR System
38.	MLD	Million Litres per Day
39.	NABARD	National Bank for Agriculture and Rural Development
40.	NC / PC	Not Covered / Partially Covered
41.	NeGP	National e-Governance Plan
42.	NRDWP	National Rural Drinking Water Programme
43.	NIT	Notice Inviting Tender
44.	NPS	National Pension System

45.	O&M	Operations and Maintenance
46.	OD	Overdraft
47.	OHSR	Over Head Service Reservoirs
48.	ORWS	Other Rural Water Supply.
49.	PER	Preliminary Engineering Report.
50.	PHD	Public Health Division
51.	PMU	Project Management Unit.
52.	PPD	Project Planning and Development
53.	PS&GL	Personal & General.
54.	PRA	Permanent Retirement Account
55.	PFRDA	Pension Fund Regulatory and Development Authority
56.	PURA	Provision of Urban Amenities to Rural Area
57.	PVC	Polyvinyl chloride
58.	RCC	Reinforced Cement Concrete
59.	RIDF	Rural Infrastructure Development Fund
60.	RW	Raw Water
61.	RWPM	Raw Water Pumping Main
62.	RWSS	Rural Water Supply Scheme
63.	SAAP	State Annual Action Plan
64.	SAARK	Special Assistance Against Recession in Kerala
65.	SAGY	Saansad Adarsh Gram Yojana
66.	S&P	Store and Purchase
67.	SCP	Special Component Plan.
68.	SDC	Sector Development Cell
69.	SLSSC	State Level Schemes Sanctioning. Committee
70.	SSDG	State Service Delivery Gateway
71.	STP	Sewage Treatment Plant
72.	TAC	Training Advisory Committee
73.	TCC	Total Cash Compensation
74.	TSP	Tribal Sub Plan
75.	TSS	Trivandrum Sewerage Scheme
76.	TW	Treated Water
77.	TWSS	Trivandrum Water Supply Scheme
78.	UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
79.	ULB	Urbal Local Bodies
80.	UWSS	Urban Water Supply Scheme
81.	WASCON	Water And Sanitation Consultancy Wing
82.	WB	World Bank.
83.	WBP	World Bank Project.
84.	WGDP	Western Ghat Development Programme.
85.	WS	Water Supply
86.	WSS	Water Supply Schemes.
87.	WTP	Water Treatment Plan