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KOCHI MUNICIPAL CORPORATION

DRAFT

Septage management byelaw

Operational guidelines included

Byelaw on faecal sludge and septage management

Read:

1. The water (Prevention and control of pollution) Act, 1974.
2. Kerala Water Supply and Sewerage Act, 1974
3. The Environment Protection Act, 1986
4. The Kerala water Supply and Sewerage Act, 1986
5. The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993. Put a ban on dry latrines, i.e., latrines with no water-seal or flushing mechanism, and the employment of persons for manually carrying human excreta.
6. The 73rd&74thConstitutional Amendment Act, 1993 (The Seventh Schedule (Article 246) of the Indian constitution classifies ‘Public health and sanitation [...]’ and ‘Water, that is to say, water supplies, irrigation and canals, drainage and embankments [...]’ as state subjects (List II, Entry 6 and List II, entry 17, respectively). The local bodies are thus responsible for initiating preventive and reactive measures to tackle infectious diseases, and directing and managing sanitary facilities and infrastructure)
7. Kerala Municipality and Panchayat Raj Act, 1994 The Kerala Municipality Act, 1994 regulates the responsibilities for the topics of water and sanitation within the state of Kerala. The responsibility for the sanitation sector is entrusted to the Standing Committee for Health and Education of the Municipal Council.
8. National Building code (NBC) 2005
9. Kerala State Pollution Control Board Circular 2006
10. National Urban Sanitation Policy 2008
11. Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 by which “hazardous cleaning” in relation to sewers and septic tanks was also banned. The law now provides that manual cleaning of sewers and septic tanks, if necessary, may be carried out only in very controlled situations, with adequate safety precautions, and in accordance with specific rules and protocols for the purpose. All public and private sector staff should adhere to safety norms as provided in the Manual on Sewerage and Sewage Treatment published by the Ministry of Urban Development.
12. Kerala State Pollution Control Board Circular 2010
13. Advisory note on septage management, 2013
14. The Prohibition of employment as Manual scavengers and their rehabilitation Act, 2013
15. Kerala State sanitation strategy, 2015
16. Swachh Bharat Mission (Urban) Guidelines, 2014
17. Solid waste management rules, 2016. Apply to the final and safe disposal of post-processed residual faecal sludge and septage
18. The Model Building bye law 2016
19. National policy on Faecal sludge and septage management, 2017
20. Bureau of Indian Standards (BIS)

Terms used

Faecal sludge

“Faecal Sludge” is the raw or partially digested slurry or semisolid collection, of combinations of excreta and black water, with or without grey water. It is the settled contents of pit latrines and septic tanks. The physical, chemical and biological qualities of faecal sludge are influenced by the duration of storage, temperature, soil condition, and intrusion of groundwater or surface water in septic tanks or pits, performance of septic tanks, and tank emptying technology and frequency. Faecal sludge is the solid or settled content of pit latrines and septic tanks. Faecal sludge (FS) comes from onsite sanitation systems. Examples of onsite technologies include pit latrines, non sewerred public ablution blocks, septic tanks, aqua privies, and dry toilets.

Septage

“Septage” is the liquid and solid material that is pumped from a septic tank, cesspool, or even onsite treatment facility after it has accumulated over a period of time. Usually, septic tank retains 60% - 70% of the solids, oil, and grease that enter it. The scum accumulates on the top and the sludge settles to the bottom comprising 20% - 50% of the total septic tank volume when pumped out. Offensive odour and appearance are the most prominent characteristics of Septage. It is a host of many disease-causing organisms along with the contamination of significant levels of grease, grit, hair, and debris. Septage is the combination of scum, sludge, and liquid that accumulates in septic tanks. The effluent from the septic tank can be collected in a network of drains and/or sewers and treated in a treatment plant designed appropriately. The accumulating sludge at the bottom of the septic tank however, has to be also removed and treated once it has reached the designed level or at the designed desludging frequency whichever occurs earlier. Such a removal is possible only by suction trucks. While sucking out the sludge, the liquid in the septic tank will also be sucked out. Such a mixture is referred to as septage.

Septic tank

An underground watertight tank that treats sewage by a combination of solids settling and anaerobic digestion. The effluents are to be discharged into soak pits, drain fields or small-bore sewers, and the solids/septage has to be pumped out periodically.

Sewerage

The underground conduit for the collection of sewage is called Sewer. A network of sewer and appurtenances intended for the collection and conveyance of sewage generated from each of the properties to a sewage pumping station for pumping to sewage treatment plant for further treatment and disposal is called sewerage system.

On-site sanitation

On-site sanitation is a system of sanitation whose storage facilities are contained within the plot occupied by a dwelling and its immediate surroundings. For some systems (e. g. doublepit or vault latrines), faecal matter treatment is conducted on site and also by extended in-pit consolidation and storage. With other systems (e. g. septic tanks, single-pit or vault installations), the sludge has to be collected and treated off-site. (WHO, 2006, p. 180)

Faecal sludge and Septage Management (FSSM)

FSS Management (FSSM) deals with on-site sanitation systems, while wastewater management is concerned with sewerage sanitation. FS may be treated in separate treatment works or co-treated with sludges produced in wastewater treatment plants. (Strauss et al., 2002). Faecal Sludge Management (FSM) involves safely collecting, transporting, treating and disposing the faecal sludge from the on-site sanitation systems. A more commonly used term has been septage management, which is "a historical term to define sludge removed from septic tanks" (Tilley, Ulrich, Lüthi, Reymond, & Zurbrügg, 2014). On-site sanitation systems collect, contain and partially treat the faecal waste and wastewater. The sludge accumulated in these systems need to be periodically removed and treated before being disposed into the environment.

Scum

The layer of solids formed by wastewater constituents that floats to the surface of a tank or reactor (such as oil, grease, hair or any other light material)

Effluent

The liquid fraction collected in between scum and sludge in a septic tank is known as effluent, sometimes also referred to as a supernatant.

1. Introduction

Septage management includes the entire process of design, collection, safe treatment & disposal of septage based on generation of sewage. A comprehensive program that regulates periodic septic tank cleaning, as well as septage transport, treatment, reuse, and disposal is important in the context of our rapidly urbanizing economies and which is meant by septage management.

Kochi, also known as Cochin, is the economic, touristic and commercial capital of the state of Kerala, which is located on the south-west region of India on the Malabar Coast. The population of the urban agglomeration of Kochi is 2.1 million. The Corporation of Cochin (CoC) was formed by the merging of three municipalities and neighboring areas in 1967.

The Corporation of Cochin has a population of just over 600,000 inhabitants, divided in 74 wards and covering 95 km² (Census 2011). As an economic and touristic center, CoC is estimated to have a diurnal floating population of 25,000 (Corporation of Cochin 2015) and an overall floating population of 30,000 people (GIZ 2014). The city features a tropical monsoon climate with little temperature variations and high amounts of rainfall from May to October (annual rainfall of about 3,000 mm).

Several physical and geographical features affect the sanitation situation in Kochi negatively. Kochi is situated within the backwaters on the coastal plain with a maximum elevation of 7.5 meters above mean sea level (msl). The resulting high water table leads to the infiltration of groundwater into sewers. Narrow roads, predominantly sandy soil, heavy rainfalls during monsoon season and unfavorably terrain conditions further complicate the construction of new sewer lines and are major challenges for sanitation services.

2. Existing facility/practice of sewage treatment and septage management

There is an existing sewerage system covering about 6% of the population (36000), 5% of the area, around M. G. Road with a 4.50 MLD STP at Elamkulam maintained by Kerala Water Authority. In addition to this, a small STP of capacity 900 m³ catering to the need of about 7086 people in 1 hectare of land is being operated by GCDA (Greater Cochin Development Authority)

94% of the population is not covered with any centralized sewage treatment system and rely on septic tank (72%) and pit (3%) based on-site toilet system. 2% of the population drains the faecal waste into storm water drains, 4.1% of the population use shared or community toilets. Onsite disposal practice of the remaining 20% of the population is either not quantified or documented. 72% of the population is having septic tank based toilets. The total number of septic tanks would be then $101520(564000 \times 0.72 \div 4)$ if the members of a household is taken as 4. Surveys show that many septic tanks do not comply with location, design and construction guidelines (GIZ 2014b).

3. Sewerage Master Plan/Proposition

Master Planning of sewerage for KMC has been done with a design population of 7, 00,000 persons in horizon year 2041 and an average per capita water supply of 150 lpcd. Master plan of sewerage will also decentralize the collection, transportation and treatment.

- Zone – I: West Kochi Area comprising of ward no. 1 to 10, 24 to 28 and a part of ward no -11 (30%).
- Zone – II: West Kochi Area comprising ward no. 12 to 23 and part of ward no – 11 (70%)
- Zone – III: Willington Island comprising of ward no – 29 and 30
- Zone – IV: Central Kochi comprising of ward no – 52 to 54, 59 to 62, 64, part of ward no. 63 (90%) and 65 (20%)
- Zone – V: West Kochi comprising of ward no – 31 to 38, 40, 66 to 71 and part of 39 (70%), 41(10%), 63 (10%) and 65 (80%).
- Zone – VI: East Kochi comprising of 42 to 48, 51 and part of 41 (90%)
- Zone – VII: South Kochi comprising of ward no 49, 50, 55 to 58

This includes 500km of sewer lines, 21 pumping stations, 43km of pumping mains, 8 STPs. Due to public protest and technical issues like narrow roads the Municipal Corporation could not proceed further in this regard in establishing a centralized sewage collection system and treatment facilities. Future developmental activities are intended towards making provision for sewerage and sewage treatment facilities.

As a pilot project under the AMRUT (Atal Mission for Rejuvenation and Urban Transformation) a project based on small bore technology is initiated in the wards 15, 16, 17 in Zone-II. Small bore technology deploys a set of shallow sewer network that collects the grey water and black water/sewage is retained in the septic tank. The septage generated is treated at septage treatment plant. Advantages of the system include elimination of the soak pit and drain bed which pollutes the water in high water table areas.

4. Septage generation:

Adopting the (U.S. EPA, 1984) estimate of per capita septage generation of 230 litres/year and an average household size of four, the septage generation per household would be 920 litres/year. Alternatively, assuming an average septic tank volume of 3 m³ and emptying of septage when one-third of the septic tank is filled with settled solids, the volume of septage emptied would be 1 m³.

- The total septage generated in Kochi Municipal Corporation area per day is around 379 m³ (602046 x 230 litres per year/365)

- According to STCA (Septic Tank Cleaners Association) approx. 200 m³ of faecal sludge is generated per day in the city (Ref.SFD-GIZ, 2016)

5. Septage Management and treatment at present

The Kochi Municipal Corporation has established two Septage treatment plants under the Kerala Sustainable Urban Development Project. Each plant is having a treatment capacity of 100m³/day. One of the treatment plants is located near the Municipal Solid Waste management facility of the Municipal Corporation in Brahmapuram and the other is located in A2 sector of Willington Island which is in agreement with the Port Trust of Cochin.

On full capacity the two plants together will have a capacity to treat septage collected by about 40 trucks a day.(Truck capacity 5000litres)

Desludging is done on the request of the residents when a septic tank is overflowing (GIZ 2014b). Due to high groundwater tables, when the faecal waste overflows it would contaminate the ground water and has to be considered as unsafe disposal. Households are charged at the rate of Rs.3000 – 4000 for desludging the septic tank.

Desludging of septic tanks is being carried out by private agencies using vacuum trucks/using jet pumps in an unorganized manner. Around 70-80 such trucks having a capacity of 5000-6000 litres are in operation making 3 trips a day. If these figures shared by STCA (Septic Tank Cleaners Association) are correct either fresh sewage is collected or the operational area is beyond the Kochi Corporation limits.

Septage is dumped illegally in either water bodies or vacant plots of land, leaving serious environmental impact with respect to groundwater contamination and pollution of water bodies and canals.

6. Byelaws

Notwithstanding anything inconsistent therewith contained in the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993 no person local authority or any agency shall, after the date of commencement of the act construct an insanitary latrine or engage manual scavengers for cleaning. To ensure scientific construction of the septic tank the following mandates are issued:

- 6.1 The building plan for new houses and buildings shall be approved only if the mandated criteria given below are met and building inspectors of the Municipal Corporation shall ensure the mandates are complied. Insanitary latrines shall immediately be converted to sanitary latrines.

Septic Tanks

Where a septic tank is used for sewage disposal, the location, design and construction of septic tank shall conform to requirements of Part 9 'Plumbing Services, Section 1 Water Supply, Drainage and Sanitation (Including Solid Waste Management)' of NBC, 2005.

Location of the Septic Tanks and Subsurface Absorption Systems

A sub-soil dispersion system shall not be closer than 18 m from any source of drinking water, such as well, to mitigate the possibility of bacterial pollution of subsurface water. It shall also be as far removed from the nearest habitable building as economically feasible but not closer than 6 m, to avoid damage to the structures. Septic tank should be located at a place open to sky, as far away as possible from the exterior of the wall of building and should not be located in swampy areas or areas prone to flooding.

Requirements

- a. *Dimensions of septic tanks* - Septic tanks shall have a minimum width of 750 mm, a minimum depth of 1 m below the water level and a minimum liquid capacity of 1 m³. The length of tanks shall be 2 to 4 times the width;
- b. Septic tanks may be constructed of brickwork, stone masonry, concrete or other suitable materials as approved by the Authority;
- c. The septic tank should have atleast one baffle separating the tank into multiple compartments.
- d. Under no circumstances shall effluent from a septic tank be allowed into an open channel drain or body of water without adequate treatment.
- e. The minimum nominal diameter of the pipe shall be 100mm. Further, at junctions of pipes in manholes, direction of flow from a branch connection shall not make an angle exceeding 45° with the direction of flow in the main pipe.
- f. The gradients of land drains under-drainage as well as the bottom of dispersion trenches and soakways shall be between 1:300 and 1:400
- g. Every septic tank shall be provided with ventilating pipe of at least 50mm diameter. The top of the pipe shall be provided with a suitable cage of mosquito proof wire mesh. The ventilating pipe shall extend to a height which would cause no smell nuisance to any building in the area. Generally the ventilating pipe may extend to a height of about 2m, when the septic tank is atleast 15m away from the nearest building and to a height of 2m above the top of the building when it is located closer than 15m
- h. When the disposal of septic tank effluent is to a seepage pit, the seepage pit may be of any suitable shape with the least cross sectional dimension of 0.90m and not less than 1.00m in depth below the invert level of the inlet pipe. The pit may be lined with stone,brick or concrete blocks with dry open joints which should be backed with at least 75mm of clean coarse aggregate. The lining above the inlet

level should be finished with mortar. In the case of pits of large dimensions, the top portion may be narrowed to reduce the size of the RCC cover slabs. Where no lining is used, specially near trees, the entire pit should be filled with loose stones. A masonry ring may be constructed at the top of the pit to prevent damage by flooding of the pit by surface runoff. The inlet pipe may be taken down to a depth of 0.90m from the top as anti-mosquito measure and

- i. When the disposal of the septic tank effluent is to a dispersion trench the dispersion trench shall be 0.50m to 1.00m deep and 0.30m to 1.0m wide excavated to a slight gradient and shall be provided with 150mm to 250mm of washed gravel or crushed stones. Open joined pipes placed inside the trench shall be made of unglazed earthenware clay or concrete and shall have a minimum internal diameter of 75mm to 100mm. Each dispersion trench shall not be longer than 30m and trenches shall not be placed closer than 1.8m
- j. Waste containing excessive detergents, grease and disinfectants should not be treated in septic tank as they adversely affect the anaerobic decomposition.

The sizing of septic tank for upto 20 users shall be as follows.

No. of users	Length(m)	Breadth(m)	Liquid depth(cleaning interval of)	
			2 years	3 years
5	1.5	0.75	1	1.05
10	2	0.9	1	1.4
15	2	0.9	1.3	2
20	2.3	1.1	1.3	1.8
Ref.BIS:2470(Part-1)1985,Provision of 300mm freeboard shall be provided				

6.2 The Municipal Corporation of Kochi shall impose a fine of **upto** Rs.5000 on insanitary and dilapidated septic tanks which has not been converted or rebuilt before December 2018. The building inspectors of the Municipal Corporation shall ensure the septic tanks in use under their jurisdiction are in par with the standards.

6.3 The Corporation will also impose fine upto Rs.5000 if the effluent from septic tank is discharged to storm water drains/rivers/lakes/any water body. An amount of Rs. 500 will be awarded to those who points out such illegal discharges to any water body with photographs and legal action under the Water(Prevention and control of Pollution) act 1974

High rise buildings and apartments

6.3 Every residential flats and apartments having more than four floors and built up area of 2000 m² and above, hotels with minimum 20 rooms and hospitals with more than 50 bed strength have to establish and operate wastewater treatment plant to treat

sewage and sullage generated by them and upgrade the effluent standard to the levels prescribed by Kerala State Pollution Control Board and Central Pollution Control Board from time to time. The minimum distance to be maintained from the periphery of such STP to the nearest building is $10\log Q$ where Q is the effluent generated or treated in m^3/day . The operator/builder shall submit sludge management plan within 6 months of the notification of this byelaw and shall submit yearly reports on sludge management and shall abide with the statutory and regulatory amendments made from time to time.

Pit latrines and twin pit latrines

- 6.4 Considering Sandy soil condition throughout the corporation limits and monsoon season extending for more than 6 months that support fast infiltration, considering the pollution potential of faeces getting mixed with the ground water and surface water it is hereby made into force that within the jurisdiction area of the Municipal Corporation no pit latrines and twin pit latrines shall be permitted.

The Municipal Corporation admits the time required for the conversion of such existing toilets to septic tank based to 1 year of this notification and will provide financial assistance to a tune of Rs.10000 for conversion of pit latrines. Such application for conversion of latrines duly signed by the ward councilor shall be addressed to the Secretary, Kochi Municipal Corporation with photographs having in the foreground picture of the house owner.

Hanging toilets

- 6.5 Hanging toilets or any kind of makeshift arrangements that directly discharge the human faeces into water bodies and drains intended for storm water drainage are strictly prohibited. Spot fine at the rate of Rs.1000 shall be imposed on such toilets seen after 6 months of this notification and legal action will be initiated under the 'The water (Prevention and Control of Pollution) Act 1974. An amount of Rs.2500 will be awarded to any person if he or she reports about any such toilets not converted/not applied for conversion with photograph, and the reward amount will be deducted from the subsidy that is supposed to be given to the prospective beneficiary for conversion of hanging toilets and pit/twin pit latrines.

A financial assistance to a tune of Rs.15400 will be given for conversion of hanging toilets. Such application for conversion of latrines duly signed by the ward councilor shall be addressed to the Secretary, Kochi Municipal Corporation with photographs having in the foreground picture of the house owner.

In view of the speedy conversion of dilapidated and toilets having potential for pollution within 6 months of this notification the prospective beneficiary shall initiate necessary measures to convert the toilets.

Desludging of septic tanks and pit latrines

6.6 In pursuance of the Employment of Manual Scavengers and construction of Dry Latrines(Prohibition) Act, 1993 and the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 by which “hazardous cleaning” in relation to sewers and septic tanks was also banned, no manual cleaning of the septic tank, sewer, and any system auxiliary to the sewerage shall be permitted and shall only be carried out by mechanical means.

6.6.1 No person/labour shall contact the faeces or any matter in the septic tank with neither bare hands nor get inside the septic tank for cleaning. The persons concerned with the desludging activities shall strictly use protective gears like hand gloves, gumboots masks, hard hats etc. No fire, lantern shall be placed or lighted near the place as the noxious emissions from the septic may catch fire.

6.6.2 Desludging shall be done only by deploying vacuum trucks. Small scale vacuum trucks called Vacutug (from 200 up to 2,000 litres capacity) are also recommended for use in areas inaccessible to large desludging vehicles. The Vacutug is mounted on wheels and can be attached to a small vehicle. It can be manufactured locally to offer flexibility and mobility without losing the capacity to collect a substantial volume of fecal sludge within one operation. The trucks shall be painted in golden colour or as directed/fixed by the RTO

6.6.3 Septic tank shall be emptied at an interval of 2-3 years or when the tank is 1/3rd full (recommended by CPHEEO Sewerage and Sewage treatment Manual and the MoUD advisory on septage management) One part of the sludge shall be left in the septic tank to ensure that a minimum level of microorganisms responsible for anaerobic digestion remain in the tank.

6.6.4 Septage shall not be disposed in any vacant land, river, backwater or any water body or buried. The de-sludged septage shall strictly be transported to any of the treatment facilities of the corporation and get treated.

6.6.5 Spot fine of Rs.25000 shall be imposed if a vehicle carrying septage/faecal sludge is caught emptying anywhere other than the treatment facilities provided. Public may inform such instances and will be rewarded with an amount of Rs.1000 on production of photographs of de-sludging carried out elsewhere. Photographs can be E-mailed to the kochicorpsecretary@gmail.com

6.6.5 All operators shall obtain vehicle passes issued by the Municipal Corporation for transportation of septage.

6.6.6 All issues related to the operation of the treatment plant and transportation shall be reviewed by the Health Standing committee of the Municipal Corporation and the decision taken shall be final and binding.

Payment for Desludging:

The operator shall remit an amount of Rs.400 with the Municipal Corporation for a single trip to desludge septic tank/s, transport and treat the septage at any of the two septage treatment facilities of the corporation.

Upon receipt of the amount to be paid and producing the same the Health Inspector of the plant will issue a vehicle pass (Annexure-1). Pass No. is sent to the mobile number furnished in the pass. The vehicle pass shall be handed over to the plant operator and the plant operator inturn shall issue an acknowledgement slip (Annexure-II)

The service charges to be paid by the operators shall be as furnished below

Sl.No	Pass type	No. of trips	Validity	Charges/fees
1.	Single pass	1	8hrs	Rs.400

The septage treatment plant operator shall on a weekly basis submit the passes handed over to him to the Municipal Corporation. This is to ensure that the such number of trips have been completed

The Municipal Corporation sets up a toll-free number 180018001800* and any grievances regarding emptying the septic tank, transportation and treatment can be reported to the number.

The Municipal Corporation of Kochi fixes the tariff for de-sludging as furnished in the table below:

Sl.No	Septic tank with no. of users	Charges/fees
1.	5	Rs.3000/5000 litre/single trip
2.	10	Rs.5000/10000litre/2 trips

No operator/cleaning agencies shall charge any amount from the owner/occupier of the building in excess of the prescribed fee.

If desludging is to be carried at a house/place inaccessible to the truck and is at a distance more than 20m an additional charge of Rs.500 shall be made by the house owner.

No payment in excess other than the amount fixed by the Corporation shall be made to the service providers. Such cases if reported, the service provider will be liable to pay twice the amount charged in excess to the Corporation and will be refunded to the houseowner.

Transportation of the septage

Only certified and licensed septage transporters shall be permitted to de-sludge and transport the septage or faecal sludge to the septage treatment facility. The operators shall complete a onetime registration with the Municipal Corporation; thereafter upon making the required payment passes will be issued.

The operators shall obtain a pass for Desludging and transporting the septage from the Municipal Corporation.

The Junior Health Inspector/Health Inspector shall impose a fine of Rs.5000 on truck operated without proper and valid pass obtained from the issuing authority of the corporation or seize the vehicle.

In case of accidental spillage of the septage the operator shall immediately clean the spillage by covering the waste with sand and removal of the waste. Any such spillage will be treated as negligence from the side of the operator and a fine of Rs. 2000 will be imposed.

Treatment of septage and final disposal

The septage de-sludged from the septic tanks shall duly be transported to the septage treatment facility and treated thereof.

Breaking of the trips and dumping the septage that has been pumped up from the septic tank elsewhere attract penal action against the driver/operator and the defaulters will be blacklisted. A fine of Rs.5000 will also be imposed in such cases.

The contractor/operator of the septage treatment facility shall dispose the sludge generated in a proper manner:

- * Sludge generated from the treatment facility shall not be dumped anywhere within the plant premises or within the MSW facility where the plant is located.
- * Sludge generated shall be properly dried in sludge drying beds.
- * The sludge shall be co-composted in the windrow composting facility of the Municipal Corporation situated within the complex. This is to ensure helminths egg and other pathogens are killed during the composting process at elevated temperatures.

- * The plant operator/contractor shall duly monitor the treated water quality and shall keep log of the treated water quality.
- * Records of trucks reaching the septage treatment plant shall be maintained by the operator in charge of the plant and shall be made available to the inspecting officer from Kochi Municipal Corporation.

Recordkeeping and manifests

- The concerned section of the Municipal Corporation shall have complete details of license issued.
- Register having details of passes issued shall be maintained
- The acknowledgement slip to be returned by the operator of the septage treatment plant shall have to be archived.
- All the details regarding the issuance of license, passes, acknowledgement shall be maintained online in separate google spreadsheet generated for this purpose. The address of house owners whose septic tanks have been de-sludged shall have to be recorded.

IEC and Training

Kochi Municipal Corporation shall organize orientation training to facilitate effective management of the septage treatment. IEC materials shall be developed to make the public aware of the procedures for de-sludging, treatment and final disposal of the sludge.

Annexure-1

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KOCHI MUNICIPAL CORPORATION	
VEHICLE PASS - SINGLE	
SEPTAGE TRANSPORTATION	
Not valid without the stamp/seal and signature of Health Inspector, Kochi Municipal Corporation	
Pass No.	
Issued to (Name)	
Mobile Number	
Time of issue:	
Date of Issue:	
Validity:	8hrs from the time of issue
Issued by:	
	Sign
Pass to be submitted to the Septage treatment plant operator	
Operator shall issue acknowledgement/receipt	
Pass No. sent to Mobile number given in the pass	

Annexure-2



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Acknowledgement slip

SEPTAGE TRANSPORTATION

Not valid without the stamp/seal and signature of septage treatment plant operator

Pass No.	
Issued to (Name)	
Mobile Number	
Empanelled/Reg.No	
Date and time of Issue:	
Date and time of load received	
Name and address of house owner whose septic tank has been de-sludged	

Load received

Sign and seal of the operator with date
Acknowledgement slip given with the pass. Shall be produced for issuing next pass

Annexure-III

**Form for Application for the License to Collect, Transport and Dispose Septage in
Kochi Municipal Corporation**

1. Name of the applicant: Shri/Ms _____

2. Nationality: Indian _____ Other _____

3. Address: Regd. Office: _____

Head office: _____

4. Telephone No.: (O) _____ Mobile No. _____ Email ID _____

5. Registration No. of Vehicle: _____

6. Pollution certificate of the vehicle valid up to: _____

7. Insurance of the vehicle valid up to: _____

8. Fitness of the vehicle valid up to: _____

9. Vehicle, whether fitted with GPS: _____

10 Details of the vehicles indicating model, type, capacity, leak proof, odour and spill proof having proper vacuum/ suction and discharging arrangement (Document proof of any may be enclosed).

11 Processing fee for license Rs. 1000/- (Non-refundable and as fixed by the Corporation from time to time)

D.D. No. _____ Date _____ Bank _____

12. Performance security/Bank guarantee for an amount of Rs. 10000 which shall be forfeited in case of violation.

I/We certify that information given by me/us in column 1 to 11 are true to the best of my knowledge and belief. I also certify that I have read and understood the attached terms and conditions 1 to 13 and agree to abide by them. I agree that if any information given by me is found wrong the application for license will be liable for cancellation at any time.

Signature(s) of applicant(s)

Date: _____

No. of document attached: _____

Paste Self-Attested
Recent Passport
Size Photograph

Annexure-IV

License to de-sludge and transport septage within Kochi Corporation limits

In accordance with all the terms and conditions of the By-laws/ Regulations, Municipal Corporation Act rules, permission is hereby granted to:

NAME OF LICENSEE.....

ADDRESS.....

For the disposal of septage from septic tanks in Kochi Municipal Corporation

This license is based on information provided in the Septage Collection and Transportation License Application. This license is effective for a period of 2 years from date of issue, set forth below.

EFFECTIVE DATE: _____

EXPIRATION DATE: _____

The license may be suspended or revoked for Condition of Non Compliance and is not transferable. The original license shall be kept on file in the Licensee's office. A copy of this license shall be carried in every registered vehicle used by the Licensee. Mere possession of the license shall not entitle the operator to de-sludge and transport septage or faecal waste. For each trip separate pass shall be obtained.
