

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI**

O.A. No. 395 OF 2013 (SZ)

REPORT

**PRESENTED BY JUSTICE A.V.RAMAKRISHNA PILLAI
(FORMER JUDGE, HIGH COURT OF KERALA)
CHAIRMAN, STATE LEVEL MONITORING COMMITTEE, KERALA
(FOR AND ON BEHALF OF THE AFORESAID COMMITTEE)
RELATING TO THE POLLUTION OF PERIYAR RIVER IN KERALA**

PRESENTED ON : 14.08.2020

COMPLIANCE: ORDER DATED 05.05.2020

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REPORT

The issue relating to the pollution of River Periyar, which is one of the major rivers in Kerala is a live subject of discussion among the public and in the media for more than a decade.

Indiscreet sand mining by the mafia, ruthless encroachment of the river by the riparian owners, as well as the excessive inflow of the pollutants from the nearby establishments, industries etc., on account of the indifferent attitude on the part of local bodies and other government departments in properly handling the waste management systems as per the existing laws, have totally changed the nature of the river, which was known for its unique biodiversity years ago.

The river which is the main source of drinking water of the inhabitants of Kochi Corporation and nearby areas, originates from Idukki district in Kerala and passes through the districts of Ernakulam and Thrissur before it finally joins the Arabian Sea. In Idukki, it touches the local limits of Kattappana Municipality and thirty village panchayaths. In Ernakulam district, it passes through the local limits of the Corporation of Kochi, nine municipalities and forty village panchayaths. The river divides into two in the district of Ernakulam; one branch joining the Vembanad lake and the other branch proceeding to Thrissur district, to join the Arabian Sea, after passing through Kushur, Methala and Eriyad village panchayaths in Thrissur district. **Annexure-X1** is the map showing the route of the river. **Annexure-X2** is the district wise list of local bodies through which the river passes.

The State Level Monitoring Committee, Kerala (SLMC for short), which came into existence on the strength of the order dated 16.01.2019 in O.A.606/2018 of the Principal Bench of National Green Tribunal, New Delhi was later vested with the powers of overseeing the issue of rejuvenation of polluted rivers in Kerala also, as per order dated 25.1.2019 in O.A.581/2018 by the same bench.

After the SLMC had assumed charge, a news item appeared in the Kochi Edition of the national daily 'THE HINDU' dated 15.03.2019, that a green film covering waters of the Periyar river, downstream of the Regulator cum bridge at Pathalam, around the twilight hours of the previous day. **Annexure-X3** is the copy of the said report. As I was at Thiruvananthapuram in connection with the meeting of the SLMC on that day I could visit the spot only on 17.03.2019. As directed by me, water sample was collected by the officials of the Regional Office,

KSPCB, Ernakulam for analysis. **Annexure-X4** is the report of the Kochi edition of the aforesaid daily regarding my visit.

It was informed by the officials that they were continuously monitoring the industries along the banks of the river and were initiating strict action against the violators. At the time of my visit, the river was stagnant and greyish in colour. The explanation offered by the officials was that, the colour change was due to the reduction in the oxygen level in the water because of the growth of algae, on account of excessive micro nutrients which in turn is on account of the inflow of sewage from the nearby markets and waste dumping yards. Such a possibility could not be ruled out as there is no leachate treatment facility in the waste dumping yard of Kalamassery Municipality and the fish market maintained by the Aluva Municipality which are in the vicinity. My visit to these places revealed that the waste water from the aforesaid places ultimately reaches the river, especially during the rainy season.

However, the local residents were worried about the frequent change in the colour of the river and fish kill. According to them, industrial units in the locality were discharging untreated water into the river.

Though water samples were collected by the officials of the KSPCB in my presence, the analysis report was not made available to the SLMC.

On 1st April, 2020, I received a screen shot of the river through Whats App, depicting the colour change and consequential fish kill in the river. This was from Mr.M.N.Mohan, the reporter of Malayala Manorama daily. **Annexure-X5** is the print of the said screen shot. On receipt of the same, telephonic directions were issued to the Chief Environmental Engineer, Regional Office, KSPCB, Ernakulam to inspect the spot and take follow up action. I was informed that water samples were taken for chemical analysis. The same explanation as given before was offered this time also as the reason for the colour change.

Again, on 17.04.2020 the same reporter forwarded screen shots of **Annexure-X6 series** showing the black oil like substance seen floating in the river near the bridge cum regulator at Pathalam. **Annexure-X7** is the copy of the screen shot received 27.04.2020 of Muttar puzha, Kalamassery near Puthalamkadavu, Eloor. **Annexure-X8 series** are the copies of the screen shots received on 02.05. 2020, showing the floating of a paste like substance in the river



near the bridge cum regulator at Pathalam. All these screen shorts are forwarded by Mr.Mohan.

On all these occasions, telephonic directions were given to the Chief Environmental Engineer, KSPCB, Regional Office, Ernakulam for inspection and follow up action. The ritual of taking samples, offering the usual explanation and keeping mum thereafter continued on all these occasions also. **Annexure-X9** is the copy of the news item appeared in manoramaonline.com on 3.5.2020. It was reported that the waste water from Edayar Industrial area is washed down by rain to a nearby barren land and it ultimately reaches the river through some unknown channel.

As I had brought the issue of pollution of Periyar to the present Chairman in charge of the KSPCB, on 22.4.2020 I received Whats App message from him stating that he had noted the issue of periyar contamination and was intending to visit the site on that day along with two scientists outside KSPCB and to collect samples for analysis. It was also informed that I would be updated on the output later. However, nothing was heard about the same later.

As the explanation offered by the KSPCB did not inspire confidence and as the magnitude of the issue was growing day by day, I have decided to venture out to collect the details regarding the source of pollution. Though it was a risky affair, local inspection outside certain industrial units at Eloor were made without revealing my identity. Photographs were taken with the assistance of some local people, which are appended as **Annexure-X10 series**.

Annexure-X10(a) are the photographs of the area behind M/s.Zigma, a bone meal unit. There, a drainage with no clue about its origin was seen. The drain is flowing through the rear side of the bonemeal unit and along the premises of M/s.Green Earth, a sewage treatment unit in the Edayar Industrial Development area. This drainage ends at an overgrown pit in the premises of M/s.Green earth, near its southern compound wall. This drainage was found with septic, sewage and other effluents and is suspected to be leading to the upstream of the river.

Annexure-X10(b) are the photographs of the Irrigation canal connecting periyar river and Chakkarachal paddy field. Portions of this paddy field were reclaimed at the time of the construction of approach road to the Regulator cum bridge at Pathalam. There, a pipe is seen laid, the mouth of which opens to the river. Redish and orange coloured thick water was seen flowing to the river



through this pipe. Here it is relevant to note that at the other end of the paddy field no source of water was seen to flow through this pipe. *The intelligent deduction, therefore, that can be made is that underground pipes are laid starting from some industrial units which ultimately discharges industrial waste illegally to the river through this pipe line. However, correlation is required through further investigation.*

Annexure-X10(c) are the phototographs of a drainage on the DIC road by the side of the compound wall of M/s.Yeoman Bone & Allied Products. This particular unit is not having an ETP. It is alleged that septic and sweage effluent from this unit is often pumped into this drain which ultimately reaches Periyar.

Annexure-X10(d) are the photographs of the area near M/s.Premier Ferro Alloys Ltd, which is a steel recycling unit. Effluents from this unit is discharged through a pipe line to the drainage constructed on the road along the side of the compound wall of the unit. It is alleged that the drainage was illegally constructed. The drainage leads to Edayattu Chal Paddy fields from where it reaches the river through the natural canal Kuthu Thodu.

During the night between 16th and 17th of June, 2020 a tanker lorry bearing registration KL-40-F 4009 pumping untreated effluent to a surreptitious open well was caught red handed by the public. The police as well as the pollution control board authorities were informed. The vehicle was seized by the police and FIR was registered. **Annexure-X10(e)** contains the photographs of the lorry and the well to which the effluent was pumped out. A pump set and hose were seen adjacent to the river. The vehicle was seized from the premises of M/s.Alliance Marine Products, a fish meal and chicken meal manufacturing unit. The tanker was owned by K.K.Navaz, Vellarappilly House, Aluva. Evidently, untreated effluent was being discharged into the river. The matter was intimated by me, to the present Chairman in charge of the KSPCB over telephone. Later he has forwarded the following preliminary report from the Regional Office, KSPCB, Ernakulam through Whats App.

‘Kindly note that enquiry was conducted on the place on 17.6.2020 at 1 a.m. itself by our surveillance team. Police officials were also present at the site and waste water samples were collected from the alleged vehicle carrying waste water. It is not sure that FIR has been generated. However, notice will given to the police, to register a case and will be



informed legal issues as per rules. Also, the company owner was asked to be present at the site and it is planned to collect a statutory sample also from the seized vehicle in his presence.'

However, no information was received thereafter.

On the basis of the direction of this tribunal in the order dated 5.5.2020 directing the SLMC to file a report regarding the measures for remedying the pollution being caused to river Periyar, I have collected the district wise details of industries, hotels, high-rises, health care institutions, etc on the banks of the river, through KSPCB.

Annexure-X12(a) is the list of industries, Annexure-X12(b) is the list of hotels, Annexure-X12(c) is the list of high-rises and Annexure-X12(d) is the list of health care institutions on the banks of the river in Idukki District.

Annexure-X13(a) is the list of industries, Annexure-X13(b) is the list of hotels, Annexure-X13(c) is the list of high-rises, Annexure-X13(d) is the list of health care institutions and Annexure-X13(e) is the list of other institutions on the river banks in Ernakulam District.

Annexure-X14(a) is the list of industries, Annexure-X14(b) is the list of hotels, Annexure-X14(c) is the list of health care institutions and Annexure-X14(d) is the list of other institutions on the river bank in Thrissur District.

During the first week of this month, there was torrential rainfall in different parts of the State and taking advantage of this particular situation industrial effluence from the area near the river was seen discharged, I have obtained the Videograph of the same, recorded on 6th August, 2020 which is being separately mailed along with this report.

CONCLUSION

What could be discerned from the practice hither to followed, is that evident that neither the KSPCB, nor any other government department would take any strong action in curbing the activities leading to the pollution of river Periyar. They are either afraid of someone or are guided by some other considerations. Even if action is initiated in some cases at the instance of the public or media, the same would be name sake by sending some notice and without taking any follow up action thereafter.

Lack of seriousness on the part of the State Pollution Control Board, which is duty bound to act as the guardian of Environmental Laws, writ large in granting



consent by the board, for starting new ventures. Consent letters, incorporating various conditions, are given at the initial stage, the performance of which are not followed up, giving sufficient room for the violators to circumvent law.

The plastic waste dumping yard within the local limits of the Kalamassery Municipality is a classic monument of granting conditional consent by the KSPCB years back. Reportedly none of the conditions imposed by KSPCB in its consent letter has been complied with by the Municipality in spite of various notices. Criminal complaint has been filed by KSPCB against the Municipality years back. It is also learnt that the matter which came up for consideration before the Judicial First Class Magistrate, North Paravur did not yield any positive result, as only the chief examination of the complainant was over. There was no follow up action on the part of the KSPCB, to bring this matter to the attention of the court.

I would also like to point out two more instances, to substantiate the lethargic attitude on the part of KSPCB in dealing with serious matters.

There are two industries - KMML in Kollam District and CMRL in Ernakulam District – processing ilmenite, an ore containing titanium dioxide, using hydrochloric acid. KMML produces pigment grade titanium dioxide while CMRL produces Synthetic Rutile, a lower grade titanium dioxide.

The problem of pollution caused by KMML has been subject of extensive litigation and investigation by several agencies, viz the Monitoring Committee appointed as per the directions of Hon'ble Supreme Court, the CPCB, Kerala Water Authority, CSIR-NEERI, CSIR-NIIST etc. The matter came up before the Chennai Bench of National Green Tribunal which resulted in the orders dated 31st August 2017 in OA.Nos.42, 290 and 453 of 2013(SZ). The issue adjudicated was the seepage of acidic leach ate from iron oxide storage ponds in the factory, damaging land and water sources in an extent of 450 acres. The NGT concurred with the report submitted by NEERI that there is seepage of acidic waste from old and new storage ponds.

Despite the large number of studies and submissions by various agencies in the above OAs, there has been no satisfactory evaluation of the quantity of acid seeping into the ground, and whether this is continuing.

The process of producing titanium dioxide involves the removal of other materials from the ilmenite ore. The main component removed is iron, and it is removed using hydrochloric acid and chlorine as iron chloride. Solutions of iron



chloride stored or discharged, will eventually precipitate iron oxide or hydroxide, leaving behind acidic liquor.

In the production process, hydrochloric acid is regenerated in the Acid Regeneration Plant and recycled, leaving behind iron oxides as a waste product. The plant is designed to regenerate and recycle 95% of the required acid. The iron oxides are to be stored in the storage tanks. However, it is more economical to buy hydrochloric acid rather than regenerating in the regeneration plant. In the interest of profits, the company has not been maintaining and operating its acid regeneration plant to its full capacity, and discharging iron chlorides into the storage ponds. Highly acidic iron chloride liquor should not be stored in open ponds, as its linings are not designed to retain such liquids. Acid is generated when iron oxides are precipitated from iron chloride solution by natural air oxidation.

During the tenure of Dr. Ajith Haridas, the former Chairman of KSPCB, instructions were given to carry out a material balance study to establish the quantity of unauthorised discharge of acid by seepage. KMML was asked to submit its annual data on procurement of hydrochloric acid, chlorine, lime and caustic for ten years. The analysis of data revealed extensive unaccounted loss of acid ranging from 5890 tonnes per year in year 2014-15 to 15363 tonnes per year in 2011-2012.

The material balance presented a tragic picture of continuing environmental damage caused by a State owned company in an effort to make extra profits by disregarding environmental regulations. Therefore, the company was asked to submit its own material balance calculation. As the reply lacked clarity they were again asked to submit a full plant Cl balance. The aforesaid exercises were completed before the previous Chairman has left the office. Thereafter, there is no considerable improvement in the matter. Perhaps, the KSPCB may take refuge to the handicaps caused due to the declaration of Lockdown on account of the spread of Covid-19.

CMRL in Ernakulam District produces beneficiated ilmenite using the raw materials as in KMML. But the process used at CMRL is modified, in order to reduce the oxidation state of iron to greater extent than in KMML. Nevertheless, the consumption of hydrochloric acid and chlorine less the Cl content in products transferred, must be stoichiometric to the alkalinity consumed as lime or caustic.

In order to establish the material balances, the company was asked to submit its data on consumption of raw materials and sale of products. This also happened during the tenure of the previous Chairman.

There are several long running complaints that CMRL has been discharging wastes through unauthorised outlets, possibly underground. It is necessary to carry out a material balance in a similar manner to that conducted for KMML, to establish the truth behind the allegations. However, the company has not cared to submit the particulars as required till date; it is learnt. This would be a violation of the Section 20 of Water Act and Section 20 of EP Act. As usual, there is no follow up action from the KSPCB in this matter also.

Unless, there is strong intervention on the part of this Hon'ble Tribunal, the issue relating to the pollution of river Periyar cannot be solved.

SUGGESTIONS

- a) An independent committee directly answerable to this Hon'ble Tribunal be constituted with a Chairman and five other members.

The Chairman can be an Engineer/Scientist, outside KSPCB, qualified in Environmental Engineering and having sufficient experience in the environmental field.

Two members of the Committee can be the Engineers of KSPCB having sufficient experience in field level office.

Persons outside KSPCB satisfying the following specifications can be the other three members for the Committee.

- i) An Engineer/Scientist/Professor who is an expert in the field of Water and sediment quality.
- ii) An Engineer/Scientist/Professor who is an expert in the field of operation of factories.
- iii) A Scientist/Professor in the field of Fisheries and Aquatic biology.

The aforesaid committee may be vested with powers to inspect any industry, hotel, high rises, health care institutions and other establishments on the banks of the river periyar and to collect data necessary for the evaluation from such institutions.

Reasonable honorarium/sitting fee may be fixed for Chairman and the members, payable by KSPCB. The KSPCB may be directed to arrange the logistics for the functioning of the Committee.

The District Police Chiefs of the three district may be directed to provide sufficient police assistance to the Committee, if required.

The committee shall be burdened with the responsibility of suggesting remedial measures to this Hon'ble Tribunal under due intimation to the SLMC.

- b) Strict instructions may be given to the local bodies made mention of in Annexure-X2 to close down any industry or establishment within their local limits, which violate laws.

The aforesaid local bodies may also be directed to make the surveillance of the banks of the river within their local limits more effective by installing CC Cameras.

- c) Strict instructions may be given to the KSPCB, to recover compensation for environmental degradation from any industry or other establishment, for the violation of environmental laws.
- d) The District Administration, Ernakulam may be directed to clear the bushes on the side of the river, outside the compound wall of the industries located at the Edayar area, so that surveillance unit of the KSPCB unit in the FACT area could function effectively. This has to be done with the assistance of the Irrigation Department.
- e) The attention of the Irrigation Department, Kerala State Electricity Board, KSPCB and the Revenue administration of the districts of Idukki, Ernakulam and Thrissur may be drawn to the following order of the Principal Bench of the Hon'ble NGT dated 9.8.2017, in OA.498/2015.

“All the rivers in the country shall maintain minimum flow 15-20% of the average lean season flow”.



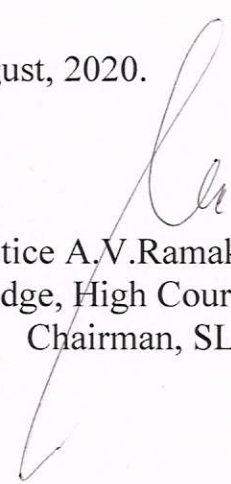
- f) The State Government may be directed to construct an inspection bridge along the banks of the river Periyar near the industrial area for effective surveillance.

Construction of such a bridge cannot dispensed with for the reason that it is expensive. It is here, one should be reminded of the following words of Guy Mc Pherson, an American Environmentalist.

“If you think the economy is more important than the *environment*, try holding your breath while counting your money”

Unless, the rivers in the State are rejuvenated, posterity will give a judgment against the present generation.

Dated this the 14th day of August, 2020.



Justice A.V. Ramakrishna Pillai
(Former Judge, High Court of Kerala)
Chairman, SLMC, Kerala.



List of Local Bodies along the Periyar River

1. Corporation

Sl.No	District	City	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD)
1	Ernakulam	Kochi	Kochi Municipal Corporation PB No-1016, Cochin Ernakulam Dt Pin-682011 0484-2369007 kochicorpsecretary@gmail.com	677000	326

2. Municipalities

Sl.No	District	Municipalities	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD)
1	Ernakulam	Aluva	Aluva Municipality, Aluva P.O, Ernakulam, PIN-683101 Tel: 0484-2623192 aluvamunicipaloffice@yahoo.com	24110	10
2	Ernakulam	Angamaly	Angamaly Municipality, Municipal Office, Angamaly, PIN-683572 0484-2452367 secretaryagly@gmail.com	33465	14
3	Ernakulam	Eloor	Eloor Municipality, Udyogamandal P O, Eloor 0484-2545559 eloomunicipality@gmail.com	31468	14
4	Ernakulam	Kalamassery	Kalamassery Municipality, Changampuzha Nagar P.O 0484-2532026 secretarykalamassery@gmail.com	71038	30
5	Ernakulam	Maradu	maradu municipal office,kundannoor 0484-2706544 secretarymaradu@gmail.com	44704	19
6	Ernakulam	North Paravur	North Paravur Municipal Office, North Paravur 0484-2442327 nparavurmunicipality@gmail.com	31503	14

Sl.No	District	Municipalities	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD)
7	Ernakulam	Perumbavoor	Municipal Office Perumbavoor, Ernakulam District, Pin 683542 0484-2522230 perumbavoormunicipality@gmail.com	28110	12
8	Ernakulam	Thrikkakkara	Thrikkakara Municipality, PIN-682030, Ernakulam District 0484 2422383 sectkramncplty@gmail.com	77319	33
9	Ernakulam	Thrippunithura	Thrippunithura Municipality, Thrippunithura P.O. Ernakulam Pin: 682301 0484 2780318 Email:musectripunithura@gmail.com	92522	39
10	Idukki	Kattappana	Kattappana Municipality, Kattappana P.O PIN – 685508 04868272235 munsecktpna@gmail.com	42646	18

3. Panchayats

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
1	Idukki	Adimaly	Adimaly Panchayat office Adimaly P.O 04864- 222160 adimalygp@gmail.com	40484	12.6
2	Idukki	Arakulam	Arakulam Panchayat office Moolamattom P.O 04862-252030 secarklmgp@gmail.com	18481	5.8
3	Idukki	Ayyappancoil	Ayyappancoil Panchayat office	15611	4.9

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
			Ayyappancoil P.O 04869-244304 ayyappancoilgp@yahoo.in		
4	Idukki	Bisonvalley	Bisonvalley Panchayat office Pottankad P.O 04865-265264 pottankadu@gmail.com	13941	4.3
5	Idukki	Chinnakanal	Chinnakanal Panchayat office Chakkupallam P.O 04868-282229 chakkupallam.gp@gmail.com	11553	3.6
6	Idukki	Elappara	Elappara Panchayat office Elappara P.O 04869-242244 elapparagp@gmail.com	23666	7.4
7	Idukki	Idukki Kanjikuzhy	Idukki Kanjikuzhy Panchayat office Idukki Kanjikkuzhy P.O 04862-239210 idukkikanjikuzhygp@yahoo.in	26809	8.4
8	Idukki	Kamakshy	Kamakshy Panchayat office Kamakshy P.O 04868- 275250 kamakshygp@gmail.com	19762	6.2
9	Idukki	Kanchiyar	Kanchiyar Panchayat office Kanchiyar P.O 04868- 271211 kanchiyargp@gmail.com	19762	6.2
10	Idukki	Karimannoor	Karimannoor Panchayat office Karimannoor P.O 04862-262221 secretarykmnr@gmail.com	19762	6.2
11	Idukki	Karunapuram	Karunapuram Panchayat office Koottar P.O 04868-236207 karunapuramgp@gmail.com	19762	6.2

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
12	Idukki	Konnathady	Konnathady Panchayat office Konnathady P.O 04868-262347 konnathadygp@gmail.com	29092	9.1
13	Idukki	Kumily	Kumily Panchayat office Kumily P.O 04869-222035 kumilygp@gmail.com	35915	11.2
14	Idukki	Mankulam	Mankulam Panchayat office Mankulam P.O 04864-218104 mankulamgpm@gmail.com	9595	3.0
15	Idukki	Mariyapuram	Mariyapuram Panchayat office Mariyapuram P.O 04862-235645 mariyapuramgp@gmail.com	12071	3.8
16	Idukki	Munnar	Munnar Panchayat office Munnar P.O 04865-230322 munnarlsgkerala@gmail.com	32029	10.0
17	Idukki	Nedumkandam	Nedumkandam Panchayat office Nedumkandam P.O 04868-232038 pncht_ndkm@yahoo.in, gpnedumkandom@gmail.com	41980	13.1
18	Idukki	Pallivasal	Pallivasal Panchayat office Pallivasal P.O 04865-263239 pallivasalpt@yahoo.in	17044	5.3
19	Idukki	Pampadumpara	Pampadumpara Panchayat office Pampadumpara P.O 04868-236262 pampadumparagp@gmail.com	21172	6.6
20	Idukki	Rajakad	Rajakad Panchayat office Rajakad P.O 04868-242343	15198	4.7

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
			rajakadgp@gmail.com		
21	Idukki	Rajakumary	Rajakumary Panchayat office Rajakumary P.O 04868-243248 rajakumarygp@gmail.com	16086	5.0
22	Idukki	Santhanpara	Santhanpara Panchayat office Santhanpara P.O 04868-247230 santhanparagp@gmail.com	15632	4.9
23	Idukki	Senapathy	Senapathy Panchayat office Senapathy P.O 04868-245241 senapathygp@yahoo.in	12529	3.9
24	Idukki	Udumbannoor	Udumbannoor Panchayat office Udumbannoor P.O 04862-272041 secretaryubr@gmail.com	23859	7.4
25	Idukki	Upputhara	Upputhara Panchayat office Upputhara P.O 04869-244241 upputharagp@gmail.com	26236	8.2
26	Idukki	Vandiperiyar	Vandiperiyar Panchayat office Vandiperiyar P.O 04869-252258 vandiperiyargp@gmail.com	40809	12.7
27	Idukki	Vannappuram	Vannappuram Panchayat office Vannappuram P.O 04862-245339 secvpmgp@gmail.com	28900	9.0
28	Idukki	Vathikudy	Vathikudy Panchayat office Murikkassery P.O 04868-263231 vathikudygp@gmail.com	27670	8.6

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
29	Idukki	Vazhathope	Vazhathope Panchayat office Thadiyambau P.O 04862-235627 vazhathopegp@gmail.com	19723	6.2
30	Idukki	Vellathooval	Vellathooval Panchayat office Vellathooval P.O 04864-276222 vellathoovalgp@gmail.com	25701	8.0
31	Ernakulam	Alengadu	Alengadu panchayth office 0484-2512267 alangadgramapanchayat@gmail.com	41251	12.9
32	Ernakulam	Ayyampuzha	Ayyampuzha Panchayath office Angamli Block Ernakulam Dt 0484-2696690 ayyampuzhagp@gmail.com	14211	4.4
33	Ernakulam	Chendamangalam	Chendamangalam Panchayath office Paravoor Block Ernakulam Dt 0484-2518568 pchendamangalam@gmail.com	29326	9.1
34	Ernakulam	Chengamanad	Chengamanad Panchayath office Parakkadavu Block Ernakulam Dt 0484-2604332 chengamanadgp@gmail.com	27978	8.7
35	Ernakulam	Cheranallur	Cheranallur Panchayath office Edappally Block Ernakulam Dt 0484-2430441 klerchrgp.lsgd@kerala.gov.in	30594	9.5
36	Ernakulam	Chittattukara	Chittattukara Panchayath office Paravoor Block Ernakulam Dt 0484-2442440	31303	9.8

10

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
			secretarychittattukara@gmail.com		
37	Ernakulam	Choornnikkara	Choornnikkara Panchayath office Vazhakkulam Block Ernakulam Dt 0484-2623530 choornnikkaragp@gmail.com	32746	10.2
38	Ernakulam	Ezhikkara	Ezhikkara Panchayath office Paravoor Block Ernakulam Dt 0484-2508475 ezhikkaragp@gmail.com	18019	5.6
39	Ernakulam	Kadamakkudi	Kadamakkudi Panchayath office Edappally Block Ernakulam Dt 0484-2430344 kadamakudypt@gmail.com	16295	5.1
40	Ernakulam	Kadungalloor	Kadungalloor Panchayath office Alangadu Block Ernakulam Dt 0484-2604392 kadungalloorpanchayat@gmail.com	41827	13.0
41	Ernakulam	Kalady	Kalady Panchayath office Angamali Block Ernakulam Dt 0484-2462394 kaladygpekm@gmail.com	28279	8.8
42	Ernakulam	Kanjoor	Kanjoor Panchayath office Angamali Block Ernakulam Dt 0484-2462254 kanjoorgp@gmail.com	22541	7.0
43	Ernakulam	Karukutty	Karukutty Panchayath office Angamali Block Ernakulam Dt 0484-2612231 karukuttygp@gmail.com	28118	8.8

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
44	Ernakulam	Karumaloor	Karumaloor Panchayath office Alangadu Block Ernakulam Dt 0484-2670478 seckarumallurpanchayat@gmail.com	36078	11.3
45	Ernakulam	Kavalangad	Kavalangad Panchayath office Kothamangalam Block Ernakulam Dt 0485-2859061 kavalagadgp@gmail.com	29727	9.3
46	Ernakulam	Keerambara	Keerambara Panchayath office Kothamangalam Block Ernakulam Dt 0485-2570256 keeramparagp@gmail.com	12525	3.9
47	Ernakulam	Keezhmadu	Keezhmadu Panchayath office Vazhakkulam Block Ernakulam Dt 0484-2623612 lgpkeezhmad@gmail.com	36567	11.4
48	Ernakulam	Kizhakkambalam	Kizhakkambalam Panchayath office Vazhakkulam Block Ernakulam Dt 0484-2680222 kizhakkambalamgp@gmail.com	33363	10.4
49	Ernakulam	Kottuvalli	Kottuvalli Panchayath office Paravoor Block Ernakulam Dt 0484-2513111 kottuvallygp@gmail.com	17903	5.6
50	Ernakulam	Kunnathunadu	Kunnathunadu Panchayath office Vadavukadu Block Ernakulam Dt 0484-2680223 secrykunnathunadugp@gmail.com	28248	8.8

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
51	Ernakulam	Kunnukara	Kunnukara Panchayath office Parakkadavu Block Ernakulam Dt 0484-2478032 kunnukara@gmail.com	33508	10.5
52	Ernakulam	Kuttambuzha	Kuttambuzha Panchayath office KothamangalamBlock Ernakulam Dt 0485-2588222 kuttampuzhagramapanchayat@yahoo.in	21765	6.8
53	Ernakulam	Kuvappady	Kuvappady Panchayath office Koovapady Block Ernakulam Dt 0484-2649025 kpdyp@gmail.com	24451	7.6
54	Ernakulam	Kuzhupilli	Kuzhupilli Panchayath office Vypin Block Ernakulam Dt 0484-2488236 kuzhuppillypanchayat@gmail.com	12137	3.8
55	Ernakulam	Malayattoor - Neeleswaram	Malayattoor -Neeleswaram Panchayath office Angamali Block Ernakulam Dt 0484-2462237 malayattoorneeleswaramgp@gmail.com	25485	8.0
56	Ernakulam	Manjapra	Manjapra Panchayath office Angamali Block Ernakulam Dt 0484-2690392 manjapragp@gmail.com	16011	5.0
57	Ernakulam	Mudakkuzha	Mudakkuzha Panchayath office Koovapady Block Ernakulam Dt	17355	5.4

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
			0484-2645057 mudakuzhagramapanchayat@gmail.com		
58	Ernakulam	Nedumbassery	Nedumbassery Panchayath office Parakkadavu Block Ernakulam Dt 0484-2477531 nedumbasserygp@gmail.com	31304	9.8
59	Ernakulam	Okkal	Okkal Panchayath office Koovapady Block Ernakulam Dt 0484-2461709 okkalgp@gmail.com	24186	7.5
60	Ernakulam	Pallippuram	Pallippuram Panchayath office Vypin Block Ernakulam Dt 0484-2488135 pprmgpekm@gmail.com	14848	4.6
61	Ernakulam	Parakkadavu	Parakkadavu Panchayath office Parakkadavu Block Ernakulam Dt 0484-2473227 parakkadavugp@gmail.com	17672	5.5
62	Ernakulam	Pindimana	Pindimana Panchayath office Kothamangalam Block Ernakulam Dt 0485-2570262 pindimanagp@gmail.com	16519	5.2
63	Ernakulam	Puthenvelikkara	Puthenvelikkara Panchayath office Parakkadavu Block Ernakulam Dt 0484-2487034 puthenvelikkaragp@gmail.com	28227	8.8
64	Ernakulam	Sreemoola Nagaram	Sreemoola Nagaram Panchayath office Parakkadavu Block Ernakulam Dt	25708	8.0

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
			0484-2600554 sreemoolanagaram@gmail.com		
65	Ernakulam	Thuravur	Thuravur Panchayath office Angamli Block Ernakulam Dt 0484-2617517 thuravoorgramapanchayat@gmail.com	21468	6.7
66	Ernakulam	Vadakkekkara	Kottuvalli Panchayath office Paravoor Block Ernakulam Dt 0484-2442265 vdkgpt@gmail.com	32745	10.2
67	Ernakulam	Vadavukodu- Puthankurisu	Vadavukodu- Puthankurisu Panchayath office Vadavukodu Block Ernakulam Dt 0484-2730033 sec.vpgp@gmail.com	24911	7.8
68	Ernakulam	Varappuzha	Varappuzha Panchayath office Alangadu Block Ernakulam Dt 0484-2513003 varapuzhasgpp@gmail.com	26750	8.3
69	Ernakulam	Vazhakkulam	Vazhakkulam Panchayath office Vazhakkulam Block Ernakulam Dt 0484-2677232 vazhakulampanchayat@gmail.com	41521	13.0
70	Ernakulam	Vengoor	Vengoor Panchayath office Koovapady Block Ernakulam Dt 0484-2645037 secretaryvengoor@gmail.com	21937	6.8
71	Thrissur	Eriyad	Eriyad Grama Panchayat Eriyad P.O	46213	14.4

Sl. No	District	Panchayats	Address of local bodies	Population (2011)	Quantity of Waste generated based on population (TPD) {300g/capita/day}
			Kodungaloor Block Thrissur District Pin 680666 0480 2819267 eryd08gp@gmail.com		
72	Thrissur	Kuzhur	Kuzhur Grama Panchayat Kuzhur P.O Mala Block Thrissur District Pin 680734 04802779751 kuzhurgp@gmail.com	19916	6.2
73	Thrissur	Methala	Methala Grama Panchayat Kodungaloor P.O Thrissur District Pin 680664 04802802231	37505	11.7

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Periyar flows green ^{15/3} downstream of Pathalam

SPECIAL CORRESPONDENT
KOCHI

A green film that resembled an oil slick covered the soupy, near-still waters of the Periyar river some half a kilometre downstream of the Pathalam regulator-cum-bridge around twilight hours on Friday.

"It didn't mix with water and covered the hull of the canoe like an oil film as we went to have a look. It appeared around nightfall and lingered thereafter," said V.B. Maheshkumar, a local resident. Officials of the Pollution Control Board collected samples of the water. PCB sources said the slick looked like algal bloom and some upflow in the river was noticed. "But, whether it was algal bloom or industrial discharge will only be known upon testing the sample collected," said an official.



A green film covering waters of the Periyar river downstream of the Pathalam regulator-cum-bridge on Friday.

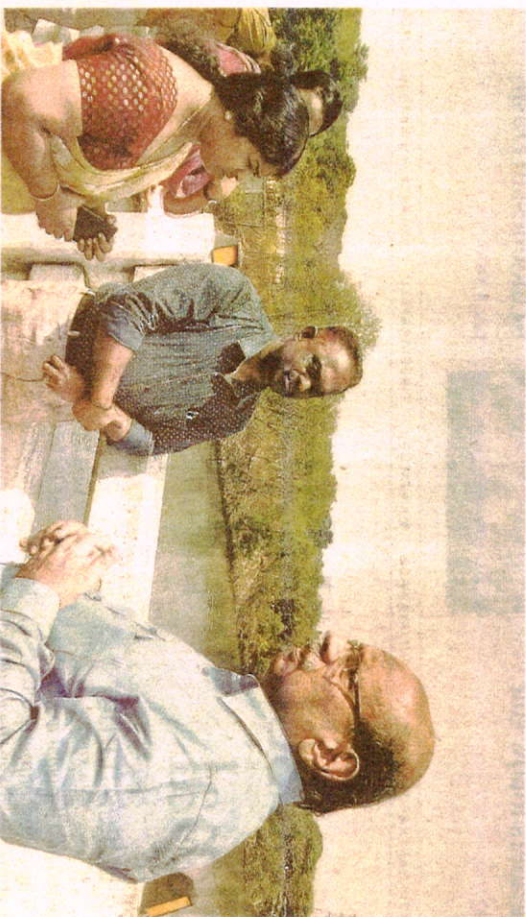
Local bodies urged to help curb pollution

NGT panel chief visits area near the Periyar following reports of change in colour of the water

SPECIAL CORRESPONDENT
KOCHI

The local bodies situated along the Periyar and its tributaries must do their bit to curb river pollution. Algal formation in the river was an indication that micronutrients entered the river body through effluent discharge and it was the responsibility of the local bodies to make sure that it was curbed, said A.V. Ramakrishna Pillai, chairman of the State Level Monitoring Committee of the National Green Tribunal (NGT), on Sunday. He was speaking during his visit to the Pathalam regulator-cum-bridge, under which the river had changed colour and fish appeared to be in distress due to oxygen depletion on Saturday.

Mr. Pillai visited the site accompanied by officials of Kerala State Pollution Control Board (KSPCB), including M.A. Baiju, chief environmental engineer, P.B. Sreelakshmi, environmental



Time to assess: A.V. Ramakrishna Pillai, chairman of the State Level Monitoring Committee of the NGT, at the Pathalam regulator-cum-bridge in Kochi on Sunday. • SPECIAL ARRANGEMENT

engineer, and M.A. Shahana, assistant environmental engineer. Members of the surveillance team were also present.

The visit followed reports of the change in colour in the Periyar in the area. He said some of the industrial units

could be using the river to discharge effluents. He pointed to the thick undergrowth along the banks of the Periyar at Pathalam and said the vegetation must be cleared to ensure that no one set up a pipeline to discharge waste water and other mate-

Samples collected

The officials said the KSPCB was continuously monitoring industries along the Periyar banks and initiating strict

action against those violating norms. The river water was stagnant and grey in colour during the visit. Samples were collected for analysis.

Residents worried

Residents in Eloor municipality and neighbouring Kadungalloor have expressed apprehensions about the frequent change in the colour of the river and fish kill. They have alleged that industrial units were discharging untreated water into the river.

Visit to dumping yard

The NGT panel chairman also visited the solid waste dumping yard operated by the Kalamassery municipality, where huge quantities of plastic waste were deposited. There are chances of leachate flowing to the nearby Thoombunkal Thodu, which ultimately leads to the Periyar.

He has directed the KSPCB to issue notice to the municipal secretary.

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ANNEXURE - X5



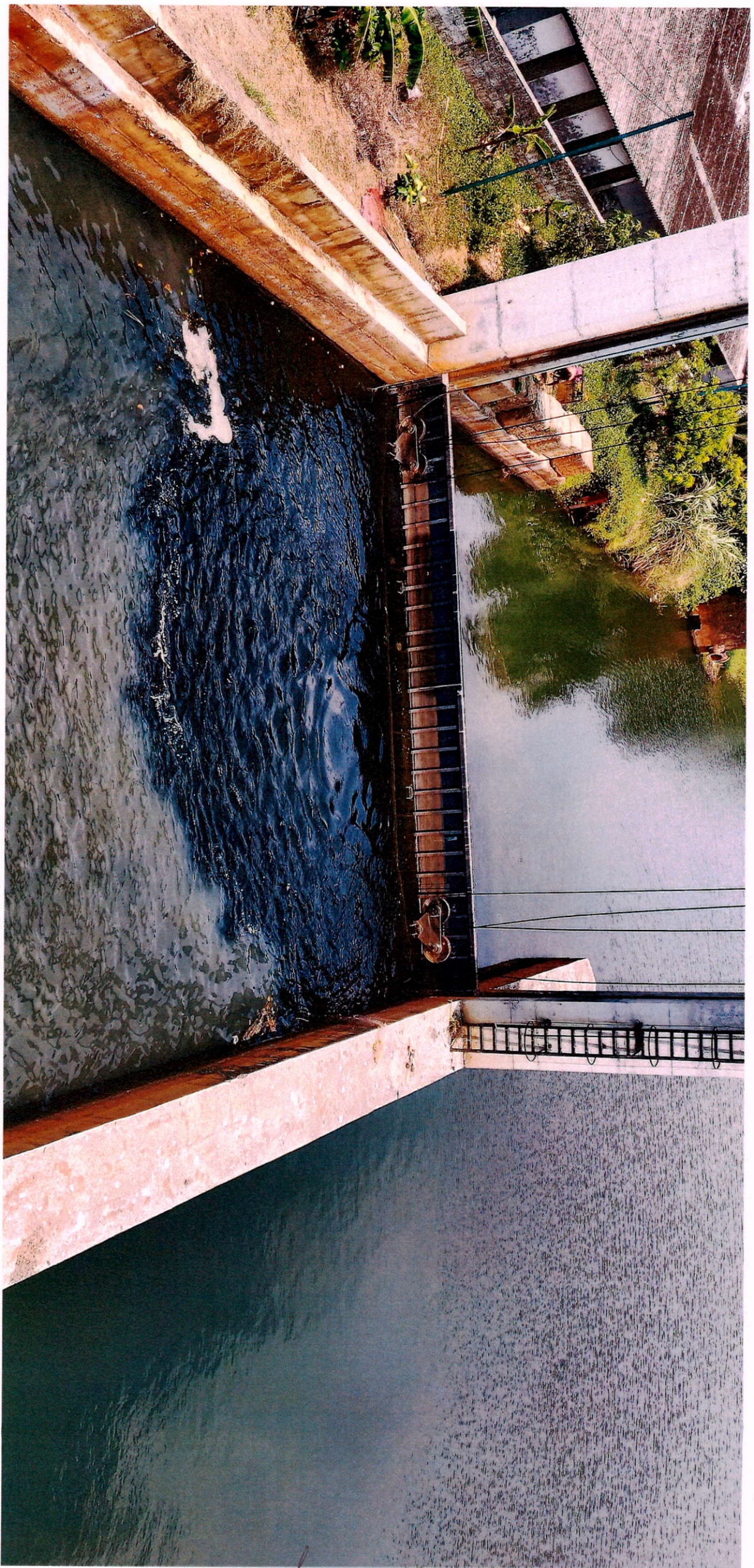
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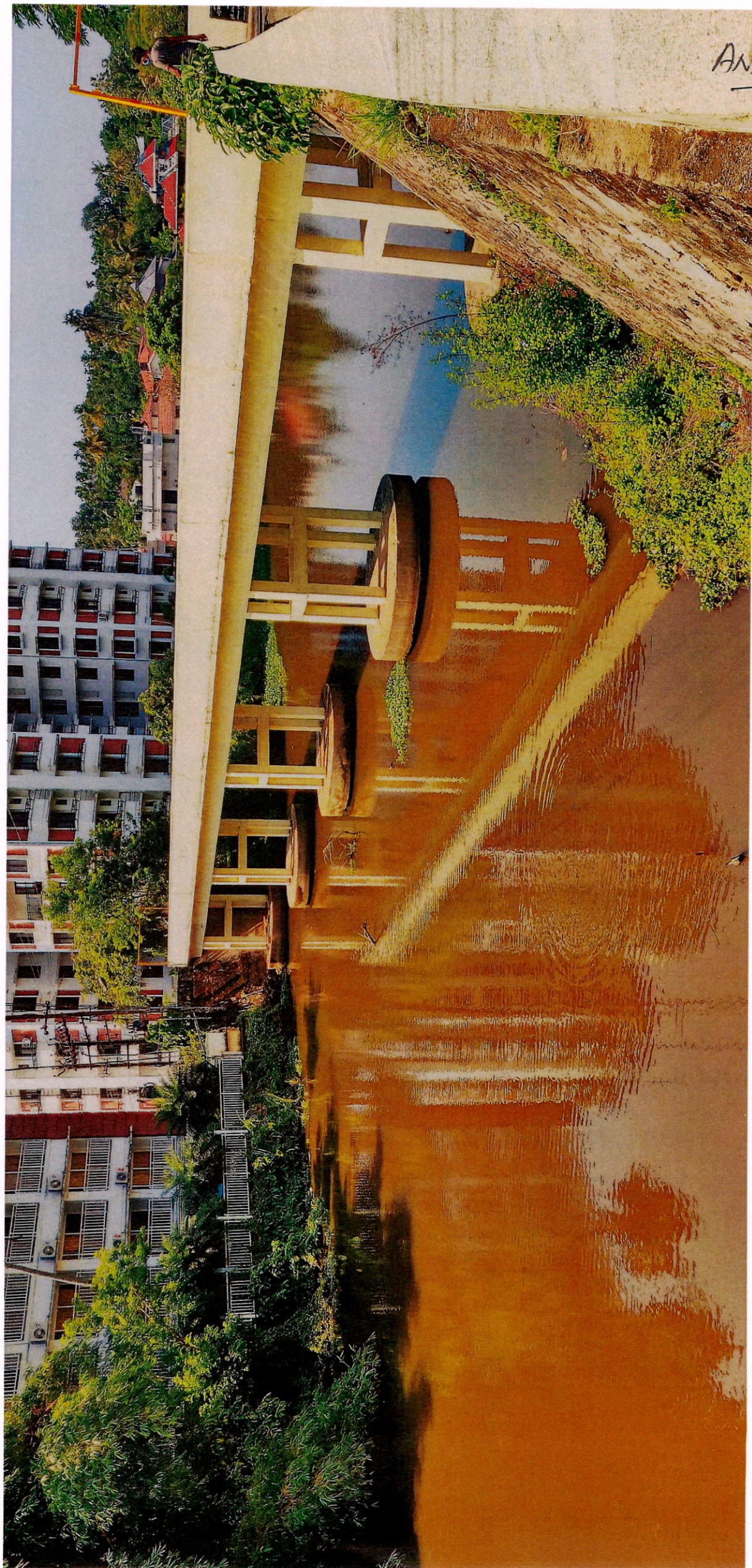
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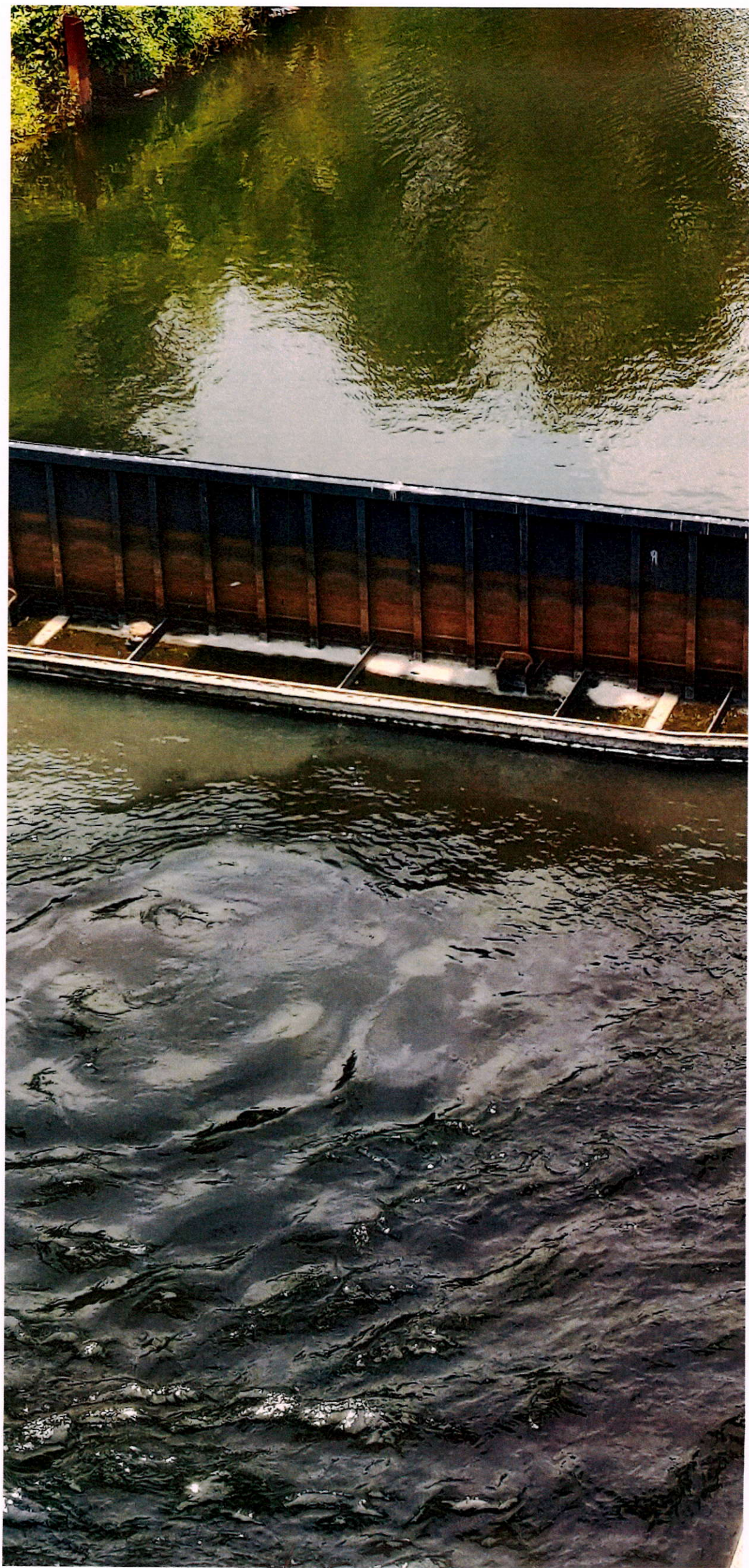


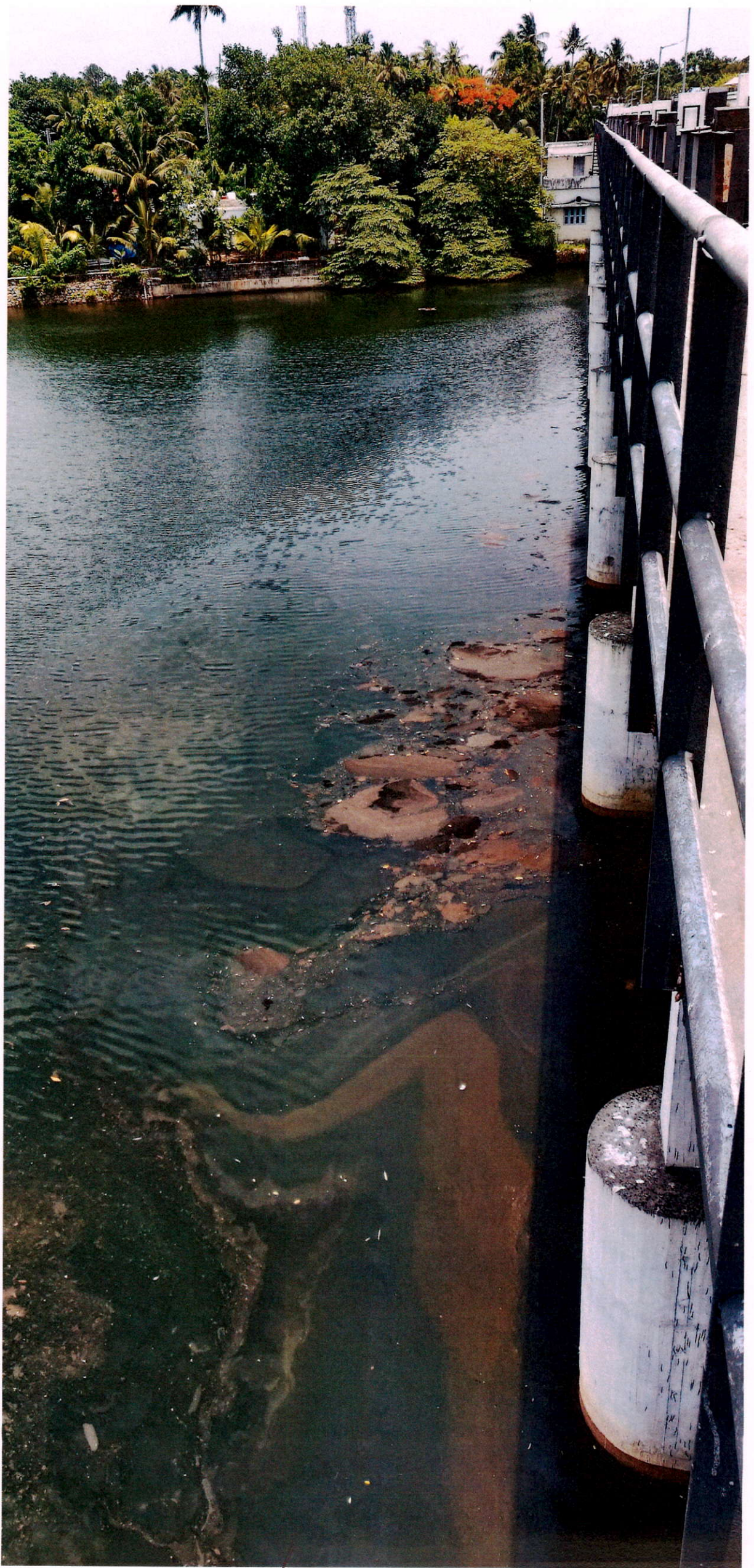


ANNEXURE-X7









പ്രാദേശികം



പെരിയാറിൽ ഷട്ടറിനകത്ത് പച്ചയും പുറത്ത് പല നിറങ്ങളിലും .



എടയാർ വ്യവസായ മേഖലയിലെ മഴവെള്ള ചാൽ വഴി മലിന ജലം പുറത്തേക്ക് ഒഴുകുന്നു.

പെരിയാറിലേക്ക് മാലിന്യച്ചാൽ

■ മാലിന്യം കലരുന്നത് എടയാർ വ്യവസായ മേഖലയിൽ നിന്നുള്ള മഴവെള്ള ചാൽ വഴി

ഏലൂർ • പെരിയാർ മലിനീകരണം ശക്തിയോടെ തുടരുന്നു. എടയാർ വ്യവസായ മേഖലയിൽ നിന്നുള്ള മഴവെള്ള ചാൽ വഴിയാണ് മാലിന്യം പുഴയിൽ കലരുന്നതെന്നു വ്യക്തമായി. മഴവെള്ളച്ചാലിൽ നിന്നുള്ള മലിനജലത്തിന്റെ സാംപിളുകൾ മലിനീകരണ നിയന്ത്രണ ബോർഡ് ഉദ്യോഗസ്ഥർ ശേഖരിച്ചു. മഴവെള്ളച്ചാലിലൂടെ ഒഴുകി യെത്തുന്ന മലിനജലം പുല്ലുമുടി കിടക്കുന്ന തരിശുപ്രദേശത്താണ് എത്തിച്ചേരുന്നത്. ഇവിടെ നിന്നു വെള്ളം എവിടേക്കു പോകു

ന്നുവെന്ന് കണ്ടെത്താനായിട്ടില്ല. ഈ പ്രദേശത്ത് പുൽക്കൂട്ടം കരിഞ്ഞുണങ്ങിയ നിലയിലാണ്. ഇവിടെ കാണപ്പെട്ട മലിനജലത്തിന്റെയും പെരിയാറിൽ ഷട്ടറുകൾക്കു മേൽത്തട്ടിൽ കാണപ്പെട്ട മാലിന്യത്തിന്റെ സ്വഭാവത്തിലും പ്രകടമായ സാമ്യം കാണാവുന്നതാണ്. ലോക് ഷട്ടറിന്റെ ഇരുവശവും ഭിത്തികളിൽ വെളുത്ത നിറത്തിലുള്ള മാലിന്യം കട്ടയായി പറ്റിപ്പിടിപ്പിരിക്കുന്നതും കാണാമായിരുന്നു. പെരിയാറിൽ ഷട്ടറുകളുടെ മേൽത്തട്ടിൽ കടുംപച്ച നിറത്തി

ലും താഴേത്തട്ടിൽ പല നിറത്തിലും മാണു കിടക്കുന്നത്. ലോകഷട്ടറിന്റെ ഭിത്തികളിൽ പറ്റിപ്പിടിപ്പിരുന്ന വെളുത്ത നിറത്തിലുള്ള മാലിന്യത്തിന്റെ സാംപിൾ ശേഖരിക്കാനുള്ള സംവിധാനങ്ങളൊന്നും പിസിബി ഉദ്യോഗസ്ഥരുടെ പക്കൽ ഉണ്ടായിരുന്നില്ല. അതിനാൽ ഈ മാലിന്യത്തിന്റെ സാംപിൾ അവർ ശേഖരിച്ചില്ല. വിവരങ്ങൾ പിസിബി ചെയർമാനെയും ബന്ധപ്പെട്ട ഉദ്യോഗസ്ഥരെയും അറിയിച്ചിട്ടുണ്ടെന്നു പരിസ്ഥിതി പ്രവർത്തകനായ മഹേഷ് എടയാർ പറഞ്ഞു.











DISTRICTWISE LIST OF INDUSTRIES LOCATED ALONG THE BANKS OF PERIYAR (IDUKKI)

Serial no.	River/Tributary	Local Body	Industry	Type	Jurisdiction
1	Deviyar	Adimali Panchayath	Eastern Condiments (P) Ltd, Adimaly	condiments	District Office, Idukki
2	Nallathanni	Munnar Panchayath	Tata Global Beverages Limited ,instant tea division, Munnar	Tea Extraction	
3	Nallathanni	Munnar Panchayath	Srishti Industrial cluster	Industrial cluster	
4	Muthirappuzhaya r	Munnar Panchayath	Tata Instant Tea, Munnar	Tea Extraction	

ANNEXURE-X12(a)

DISTRICTWISE LIST OF HOTELS LOCATED ALONG THE BANKS OF PERIYAR (IDUKKI)

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
1	Muthirappuzhayar	Munnar Panchayath	Hotel C7, Nallathanni	Hotels	District Office, Idukki
2	Muthirappuzhayar	Munnar Panchayath	Hotel Sri Nivas Restaurant, Munnar	Hotels	
3	Muthirappuzhayar	Munnar Panchayath	Eastend Munnar emple Road, Silent Valley, Munnar, Kerala 685612	Hotels	
4	Muthirappuzhayar	Munnar Panchayath	Hotel Maharani, Munnar, Idukki	Hotels	
5	Muthirappuzhayar	Munnar Panchayath	Munnar Inn, Munnar, Idukki	Lodge	
6	Muthirappuzhayar	Munnar Panchayath	Hotel Emerald Inn, Munnar, Idukki	Hotels	
7	Muthirappuzhayar	Munnar Panchayath	Eden Holidays, Riverside Inn, Munnar	Hotels	
8	Muthirappuzhayar	Munnar Panchayath	Sujatha Inn, Munnar, Idukki	Resort And Restaurant	
9	Muthirappuzhayar	Munnar Panchayath	Swiss Garden - Hotel In Munnar, Idukki	Hotels	
10	Muthirappuzhayar	Munnar Panchayath	Red Sparrow Hotel, Munnar, Idukki	Hotels	
11	Muthirappuzhayar	Munnar Panchayath	The Silvertips Munnar, Idukki	Resort And Restaurant	
12	Muthirappuzhayar	Munnar Panchayath	Grand Plaza Munnar, Idukki	Hotels	
13	Muthirappuzhayar	Munnar Panchayath	West Wood Hotels & Resorts Pvt. Ltd., Munnar, Idukki	Hotels	
14	Muthirappuzhayar	Munnar Panchayath	Archana Residency, Munnar, Idukki	Hotels	
15	Muthirappuzhayar	Munnar Panchayath	Hotel Hillview Munnar, Idukki	Hotels	
16	Muthirappuzhayar	Munnar Panchayath	Royal Retreat Munnar, Idukki	Resort And Restaurant	
17	Muthirappuzhayar	Munnar Panchayath	Abad Copper Castle - Resorts In Munnar, Idukki	Resort	

ANNEXURE-X12(6)

10-43-

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
18	Muthirappuzhayar	Munnar Panchayath	Rivulet Resort, Pallivasal, Idukki	Resort	District Office, Idukki
19	Muthirappuzhayar	Munnar Panchayath	Cuckmere Holidays, Pallivasal, Idukki	Resort	
20	Muthirappuzhayar	Munnar Panchayath	Broad Bean Resort, Pallivasal, Idukki	Resort	
21	Muthirappuzhayar	Munnar Panchayath	Hazrath Hotel, Munnar, Idukki	Hotels	
22	Muthirappuzhayar	Munnar Panchayath	Sea Grace Cottage, Munnar Idukki	Hotels	
23	Muthirappuzhayar	Munnar Panchayath	S N Tourist Home, A M Road, Munnar	Hotels	
24	Deviyar	Rajakkad Panchayth	Aruvi Resort, Thekkinkanam S N Puram, Ellaekal P O Rajakkad	Resort	
25	Deviyar	Adimaly Panchayth	Jannah Residency, Adimaly	Hotels	
26	Deviyar	Adimaly Panchayth	Matha Tourist Home	Hotels	
27	Deviyar	Adimaly Panchayth	Springdale Hotel Pvt. Ltd.	Hotels	

DISTRICTWISE LIST OF HIGH RISE BUILDINGS LOCATED ALONG THE BANKS OF PERIYAR (IDUKKI)

Serial no.	River/Tributary	Local Body	Industry/Establishment	Type of industry	Jurisdiction
1	Deviyar	Adimali Panchayth	Janani, Adimaly	High Rise Building	District Office, Idukki

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DISTRICTWISE LIST OF HEALTH CARE CENTRES LOCATED ALONG THE BANKS OF PERIYAR (IDUKKI)

Serial no.	River/Tributary	Local Body	Health Care Centre	Type	Jurisdiction
1	Muthirappuzhayar	Munnar Panchayth	Tata Global Beverages Limited High Range Hospital, Munnar	Hospital	District Office, Idukki
2	Deviyar	Adimaly Panchayath	Vijayaraja Hospital, Adimaly, Munnar, Idukki	Hospital	

6

DISTRICTWISE LIST OF INDUSTRIES LOCATED ALONG THE BANKS OF PERIYAR (ERNAKULAM)

Serial no.	River/Tributary	Local Body	Industry	Type of industry	Jurisdiction
1	Periyar	Aluva Municipality	Alwaye Rubex Pvt Ltd, Desom, Aluva	Manufacture Of Crepe/Crump Rubber	District Office_1, Ernakulam
2	Edamula Stream	Kalamassery Municipality	Elite Foods Pvt Ltd, Edappally	Food Production	
3	Edamula Stream	Kalamassery Municipality	Travancore Foods India Pvt Ltd, Kalamassery	Food And Food Processing Including Fruits And Vegetable Processing	
4	Edamula Stream	Kalamassery Municipality	Indigo Paints, Ida Kalamassery	Paint Products	
5	Periyar	Kalady Panchayath	Kaisons Hawai Industries, Near Police Station, Kalady P.O., Ernakulam	Rubber	
6	Manjaly thodu	Angamaly Municipality	M/s Pallickal Agro tech, Vengoor, Kidangoor P.O, Ernakulam	Rice Mill	
7	Manjaly thodu	Angamaly Municipality	Peters Rice Mill, Industrial Estate Angamaly South	Rice Mill	
8	Manjaly thodu	Angamaly Municipality	K.A.P. Modern Rice Mill, Nayathode p.o. Angamaly	Rice Mill	
9	Manjaly thodu	Angamaly Municipality	Chakkiathmooda Industries, Angadikadav, Angamaly 683572	Rice Mill	
10	Manjaly thodu	Kalady Panchayath	Pallickal Agro Mills, Mattoor P.O, Kalady	Rice Mill	
11	Manjaly thodu	Kalady Panchayath	Christy Modern Rice Mill, Mattoor P.O, Kalady	Rice Mill	
12	Manjaly thodu	Kalady Panchayath	Chirackal Food Products, Mattoor Marottichode, Kalady	Rice Mill	
13	Manjaly thodu	Kalady Panchayath	Metro Agro Mills, Mattoor, Kalady- 683574	Rice Mill	
14	Manjaly thodu	Kalady Panchayath	M/S Kalady Rice Millers Consortium (P) Ltd., Mattoor, Kalady P.O	Rice Mill	
15	Manjaly thodu	Kalady Panchayath	Kaveri Modern Rice Mill, Mattoor P.O, Kalady	Rice Mill	
16	Manjaly thodu	Kalady Panchayath	M/S.K & T Agro Mills Pvt.Ltd, Mattoor Kalady Ernakulam.	Rice Mill	

Serial no.	River/Tributary	Local Body	Industry	Type of industry	Jurisdiction
17	Manjaly thodu	Nedumbassery Panchayath	Mother's Rice Mill, Industrial Development area, Angamaly, South P.O, Ernakulam	Rice Mill	District Office-1, Ernakulam
18	manjaly thodu	Nedumbassery Panchayath	Vecjay Rice Mill, Industrial Development area, Angamaly, South P.O, Ernakulam	Rice Mill	
19	Periyar	Kanjoor Panchayath	St.antonys Modern Rice Mill, Sreemoolanagaram P.O Kalady	Rice Mill	
20	Periyar	Kanjoor Panchayath	Parackal Agro Mills, Kanjoor P.O, Kalady	Rice Mill	
21	Periyar	Kanjoor Panchayath	Pooja Modern Rice Mill, Chengal Kalady PO PIN 683574	Rice Mill	
22	Periyar	Kanjoor Panchayath	Anna Agro Mills, Parapuram P.O Kanjoor Ernakulam - 683593	Rice Mill	
23	Periyar	Sreemoolanagaram Grama Panchayath	Thekkekara Rice Mill, Kalady - Aluva Rd, Sreemoolanagaram, Kerala 683580	Rice mill	
24	Manjaly thodu	Kalady Panchayath	Keerthi Nirmal Rice Industries, Mattoor - Yordhanapuram Rd, Mattoor, Kalady, Kerala 683574	Rice mill	
25	Manjaly thodu	Kalady Panchayath	Valookaran Modern Rice Mill, Ernakulam, Kerala 683574	Rice mill	
26	Manjaly thodu	Kalady Panchayath	Ibis Power Laundry & Dry Cleaning Co., SIDCO Industrial Park, Chenpanoor	Laundry	
27	Manjaly thodu	Angamaly Municipality	Perumbavoor Plywood Manufacturers Consortium Pvt. Ltd., 23/217G SIDCO Industrial Park Angamaly South Post Angamaly	Plywood Manufacturer	
28	Manjaly thodu	Kalady Panchayath	Kalpana Agro Mills, Mattoor, Kalady P.O., PIN-683574	Rice Mill	
29	Manjaly thodu	Kalady Panchayath	M/S Kalady Rice Millers Consortium (P) Ltd., Mattoor, Kalady P.O	Rice Mill	
30	Manjaly thodu	Kalady Panchayath	Peoples Dairy Development Project Central Society, Kuttillakkara, Piraroor P.O, Kalady	Milk Processing Unit	
31	Manjaly thodu	Kalady Panchayath	Aiswarya Agro Mills, Mattoor, Kalady P.O	Rice Mill	

Serial no.	River/Tributary	Local Body	Industry	Type of industry	Jurisdiction
32	Manjaly thodu	Angamaly Municipality	Kancor Ingredients Ltd, VII/138, Kanakkankadavu Road (Kancor Road), Angamaly South	Rice Mill	District Office-1, Ernakulam
33	Periyar	Kalady Panchayath	Parackal Agro Mills, Kanjoor p.o. Kalady	Rice Mill	
34	Chenjal thodu	Kalady Panchayath	Pooja Modern Rice Mill, Chengal Kalady PO PIN 683574	Rice Mill	
35	Periyar	Sreemoolanagaram Grama Panchayath	St.antonys Modern Rice Mill, Sreemoolanagaram P.O Kalady	Rice Mill	
36	Manjaly thodu	Angamaly Municipality	Casino Air Caterers And Flight Services, Nayathodu.P.O. Angamaly. Ernakulam. 683572	Food Caterers	
37	Manjaly thodu	Angamaly Municipality	INKEL Ltd., INKEL Tower I, Behind TELK, Angamaly	Industrial Complex	
38	Chengal Thodu	Nedumbassery Panchayath	Lulu Flight Kitchen (P) Ltd, Near CISF Office, VIP road, Nedumbassery	Food Caterers	
39	Periyar	Okkal Panchayath	M/S E. C. Agro Mills, Okkal P.O, Okkal	Modern Rice Mill	District Office-2, Ernakulam
40	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S Edappana Agro Mills	Modern Rice Mill	
41	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S Edathala Modern Rice Mill, Chelamattom, Okkal P.O	Modern Rice Mill	
42	Periyar	Okkal Panchayath	M/S Joseco Agro Mills, East Okkal, Okkal P.O – 683550	Modern Rice Mill	
43	Periyar	Okkal Panchayath	M/S Jupiter Leys (P) Ltd, Okkal, Okkal P.O, Ernakulam - 683550	Solvent Extraction Unit	
44	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S K K R Agro Mills, Chelamattom, Okkal P.O	Modern Rice Mill	
45	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S Kkr Agro Mills Pvt Ltd, Okkal P O, Okkal	Modern Rice Mill	
46	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S Kkr Agro Mills Pvt Ltd, Okkal P O, Okkal	Pickles Manufacturing Unit	
47	Periyar	Okkal Panchayath	M/S Lakshmi Agro Mills, Edavoor P.O., Koovappady	Modern Rice Mill	

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Serial no.	River/Tributary	Local Body	Industry	Type of industry	Jurisdiction
48	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S Matha Agro Mills, Okkal P.O., Okkal	Modern Rice Mill	District Office- 2, Ernakulam
49	Ommathodu Leading To River Periyar	Okkal Panchayath	M/S Mundeth Agro Mills, Edavoor Koovappady	Modern Rice Mill	
50	Periyar	Okkal Panchayath	M/S Pottolil Agro Mills, Okkal P.O, Perumbavoor-683550	Modern Rice Mill	
51	Vizhakala Thodu/Mannthodu Leading To Periyar	Okkal Panchayath	M/S Supreme Food Industries, Op/Xv/274, Chelamattom Okkal	Ice Cream Manufacturing	
52	Vizhakala Thodu/Mannthodu Leading To Periyar	Okkal Panchayath	M/S Valiyaveetil Modern Rice Mill, Chelamattom Okkal P.O	Modern Rice Mill	
53	Periyar	Koovappady Panchayath	M/S Manickathan Modern Rice Mill, Kurichilacode, Kodanad P.O.	Modern Rice Mill	
54	Vizhakala Thodu/Mannthodu Leading To Periyar	Koovappady Panchayath	Diamond Food Products, Koovappady P.O Perumbavoor	Modern Rice Mill	
55	Periyar	Koovappady Panchayath	Nambiyattukudy Agro Industries	Modern Rice Mill	
56	Periyar	Koovappady Panchayath	Nambiattukudy Modern Rice Mill	Modern Rice Mill	
57	Vizhakala Thodu/Mannthodu Leading To Periyar	Koovappady Panchayath	Honey Industries, Koovappady P.O Perumbavoor	Modern Rice Mill	
58	Periyar	Koovappady Panchayath	Nambiattukudy Food & Spices	Modern Rice Mill	
59	Periyar	Koovappady Panchayath	Geeyem Agro Mills	Modern Rice Mill	
60	Thodu leading To Periyar	Vazhakkulam Panchayath	Avt Natural Products Ltd.	Solvent Extraction Unit	
61	Periyar Neriamanagalam Stretch	Keerampara Panchayath	Basil Natural Technically Specified Rubber Private Limited	Manufacture Of Crepe / Crump Rubber	
62	Periyar Edamalaray Stretch	Kothamangalam Panchayath	Palappillil Specified Block Rubbers Pvt Ltd, Karukadom	Manufacture Of Crepe / Crump Rubber	

Serial no.	River/Tributary	Local Body	Industry	Type of industry	Jurisdiction
63	Eloor Stream	Eloor Municipality	Fertilizers And Chemicals Travancore Limited (Fact)- Fertilizer Plant, Udyogamandal.	Fertilizer Unit	ESC, Eloor
64	Discharge To Edamula Stream	Eloor Municipality	Fertilizers And Chemicals Travancore Ltd (Fact), Petro-Chemical Plant, Udyogamandal.	Petrochemical Unit	
65	Eloor Stream	Eloor Municipality	Merchem Limited, Eloor	Rubber Chemical	
66	Discharge To Kuzhikandam Thodu Finally Reach Edamula Stream	Eloor Municipality	Hindustan Insecticides Limited (Hil), Udyogamandal.	Insecticide	
67	Eloor Stream	Eloor Municipality	Indian Rare Earths (Ire) Limited, Rare Earths Division, Udyogamandal	Minerals And Rare Earth	
68	Eloor Stream	Eloor Municipality	Travancore Cochin Chemicals. (Tcc), Udyogamandal	Chlor Alkali	
69	Eloor Stream	Kadungallor Panchayath	Sud Chemie (India) Pvt Ltd., Binanipuram, Edayar	Inorganic Chemical	
70	Edamula Stream	Eloor Municipality	Falcon Infrastructure Ltd., Puthiyaroad Jn. Eloor, Udyogamandal P.O.	Container Freight Station	
71	Eloor Stream	Kadungallor Panchayath	Essar Enterprises Ltd, Binanipuram, Edayar.	Crumb Rubber Unit	
72	Eloor Stream	Kadungallor Panchayath	Poovanthukkarar Rubbers, Edayar.	Rubber Unit	
73	Eloor Stream	Kadungallor Panchayath	Njavallil Latex Pvt. Ltd. Binanipuram, Edayar	Centrifuge Latex Unit	
74	Eloor Stream	Kadungallor Panchayath	Tms Leathers, Ida, Edayar.	Tannery Blue Hide	
75	Eloor Stream	Kadungallor Panchayath	Sunrise Tsr Factory, Industrial Development Area, Edayar	Isnr 20 Crumb Rubber Unit	
76	Eloor Stream	Kadungallor Panchayath	Rubber O Malabar Products (P) Ltd, Ida, Edayar	Rubber Conveyor Belt Unit	
77	Eloor Stream	Kadungallor Panchayath	Sreeshakthi Paper Mill Ltd., Ida, Edayar	Paper Mill	
78	Eloor Stream	Kadungallor Panchayath	Malaya Rubtech Industries, Edayar, Ida.	Isnr 20 Crumb Rubber Unit	
79	Eloor Stream	Kadungallor Panchayath	Merchem Ltd., Edayar.	Rubber Chemicals	
80	Eloor Stream	Kadungallor Panchayath	Merchem (India) Ltd., Edayar	Rubber Chemicals	
81	Eloor Stream	Kadungallor Panchayath	Cochin Minerals And Rutile Ltd (Cmrl), Ida, Edayar.	Synthetic Rutile Unit	
82	Eloor Stream	Eloor Municipality	Hindaleo Industries Ltd, Kalamassery	Aluminium Casting And Extrusion	
83	Eloor Stream	Kadungallor Panchayath	Indo German Carbons Ltd (Igel), Edayar, Binanipuram	Activated Carbon	
84	Eloor Stream	Eloor Municipality	Cochin Printech Pvt. Ltd., Udyogamandal P.O., Eloor.	Printing	
85	Eloor Stream	Kadungallor Panchayath	National Industries, Ida, Edayar.	Bone Meal And Allied Products	
86	Eloor Stream	Kadungallor Panchayath	Yeoman Bone & Allied Products, Ida, Edayar.	Bone Meal And Allied Products	
87	Eloor Stream	Kadungallor Panchayath	Biocon Organics Pvt. Ltd., Edayar	Bone Meal And Allied Products	
88	Eloor Stream	Kadungallor Panchayath	Mardec Rk Golden Crumb Rubber Pvt. Ltd., Edayar.	Isnr 20 Crumb Rubber Unit	
89	Eloor Stream	Kadungallor Panchayath	Neptune Readymix Concrete Pvt. Ltd., Edayar	Concrete Product Unit	

Serial no.	River/Tributary	Local Body	Industry	Type of industry	Jurisdiction
90	Eloor Stream	Kadungallor Panchayath	Jbs Intermix And Rubber Products Pvt Ltd, Edayar	Rubber Unit	ESC,Eloor
91	Eloor Stream	Kadungallor Panchayath	Southern Minerals & Chemicals, Edayar	Grinding Unit	
92	Eloor Stream	Kadungallor Panchayath	Valeth Boat Yard, Edayar	Boat Manufacturing	
93	Eloor Stream	Kadungallor Panchayath	Arjuna Natural Extracts Ltd., Industrial Development Area, Edayar, Muppathadom P.O.	Oleo resins manufactures	
94	Eloor Stream	Kadungallor Panchayath	Cee Jee Lubricants, Industrial Development Area, Edayar, Binanipuram P.O.	Oil re-refining	
95	Eloor Stream	Kadungallor Panchayath	Organo Fertilizers (India) Pvt. Ltd., Industrial Development Area, Edayar, Muppathadom P.O.	poultry meal	
96	Eloor Stream	Kadungallor Panchayath	Tmv Natural Oils And Extracts (P), Industrial Development Area, Edayar, Muppathadom P.O.	Herbal extracts	
97	Eloor Stream	Kadungallor Panchayath	Parakkal Industries, Eloor	Poultry Meal	
98	Eloor Stream	Kadungallor Panchayath	Varkey'S Industries, Industrial Development Area, Edayar Binanipuram P.O.	Tallow	
99	Eloor Stream	Kadungallor Panchayath	Marksmen Marine Pvt Ltd	Fish oil extraction	
100	Eloor Stream	Kadungallor Panchayath	Nelkadir Bone Industries, Industrial Development Area, Edayar, Muppathadom P.O.	Fish oil extraction	

DISTRICTWISE LIST OF HOTELS LOCATED ALONG THE BANKS OF PERIYAR (ERNAKULAM)

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
1	Periyar	Aluva Municipality	Periyar Residency, Water Works Road, Pwd Quarters, Periyar Nagar, Aluva, Kerala 683101	Hotels	District Office_1, Ernakulam
2	Periyar	Aluva Municipality	Alankar Restaurant And Tourist Home, 7/747, Railway Station Road, Railway Station Square, Aluva, Kochi, Kerala 683101	Hotels	
3	Edamula Stream	Kalamassery Municipality	Carnival Foods Central Kitchen, Resurvey No 257/5, Building No 41/287B, 683104, Industrial Estate, South Kalamassery, Kerala 683104	Hotels	
4	Edamula Stream	Cheranallur Panchayat	Periyar Restaurant, Edapally - Panvel Hwy, Cheranallur, Ernakulam, Kerala 682034	Hotels	
5	Edamula Stream	Cheranallur Panchayat	Kichu'S Catering, Cheranallur, Ernakulam, Kerala 682034	Hotels	
6	Edamula Stream	Cheranallur Panchayat	Fresh Products, Cheranallur, Kochi, Kerala 682034	Hotels	
7	Edamula Stream	Cheranallur Panchayat	Hotel Aryaas Vegetarian, Cheranallur, Ernakulam, Kerala 682034	Hotels	
8	Edamula Stream	Kalamassery Municipality	KR Bakes Pvt Ltd, Kalamassery	Bakery/Confectionery/ Sweet Products	
9	Periyar Neriamanagalam Stretch	Keerampara Panchayath	Tapovan Green County Resort Thattekad P.O Palamattom Kothamangalam	Hotels	
10	Mangalappuzha	Aluva Municipality	Kadavu Sea Food Restuarent, Nh544, Near Mangalapuzha Bridge, Desom, Aluva, Kerala 683102	Hotels	
11	Periyar	Aluva Municipality	Hotel Periyar Ltd., Near Marthandavarma Bridge Aluva	Hotels	
12	Periyar	Kalady Panchayath	Edassery Village Resort, Chengal Near Kalady, Kochi, Kerala 683574	Hotels	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
13	Chengal Thodu	Nedumbassery Panchayath	Airport Golf View Hotel And Suites Pvt. Ltd., VIP Road, Nedumbassery	Hotels	District Office- 1,Ernakulam
14	Periyar	Aluva Municipality	M/s. Scavindoz Central Kitchen, Bypass Junction, Aluva	Hotels	
15	Periyar	Aluva Municipality	Hotel Premier, Thynoth Road, Aluva (Near Aluva Pvt. Bus Stand)	Hotels	
16	Chengal Thodu	Nedumbassery Panchayath	Lulu Airport Hotel, C/o Lulu Flight Kitchen (P) Ltd, Airport road, Nedumbassery, Chengamanad P.O, Ernakulam	Hotels	
17	Chengal Thodu	Nedumbassery Panchayath	Flora Hotels and Resorts India Pvt Ltd, Opp, CIAL, Nedumbassery	Hotels	
18	Chengal Thodu	Nedumbassery Panchayath	Hotel Air Link Castle, Near CIAL, Athani P.O, Nedumbassery	Hotels	
19	Periyar	Vengoor Panchayath	Escaped Resorts Private Limited Paniely P.O, Vengoor, Perumbavoor	Hotels	District Office- 2,Ernakulam
20	Periyar Edamalayar Stretch	Kuttampuzha Panchayath	Hotel VKJ International Kuttampuzha P.O Kothamangalam	Hotels	
21	Periyar Neriamanagalam Stretch	Keerampara Panchayath	Tapovan Green County Resort Thattekad P.O Palamattom Kothamangalam	Hotels	
22	Periyar Bhoothathankettu Stretch	Pindimana Panchayath	Periyar Resorts Pvt Ltd Bhoothathankettu Bhoothathankettu P.O Ernakulam - 686681	Hotels	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
23	Pathithodu	Perumbavoor Municipality	Hotel Anjaly International Hotel Anjaly International Oushadhi Junction Perumbavoor	Hotels	District Office- 2,Ernakulam
24	Pathithodu	Perumbavoor Municipality	Hotel Ritz International A.M Road Perumbavoor	Hotels	
25	Pathithodu	Perumbavoor Municipality	Jairaj Lodge Perumbavoor Po Ernakulam District	Hotels	
26	Pathithodu	Perumbavoor municipality	Kunnathan Residency M C Road Perumbavoor	Hotels	
27	Pathithodu	Perumbavoor municipality	Manna Residency Building No. 15/324 B4, B5, B6 M.C Road Perumbavoor Perumbavoor P.O. Ernakulam	Hotels	
28	Pathithodu	Perumbavoor municipality	Traveller'S Inn Near Ksrtc Bus Station,Perumbavoor,Ernakulam.	Hotels	
29	Pathithodu	Perumbavoor Municipality	VKJ International A.M.Road Perumbavoor Ernakulam	Hotels	
30	Pathithodu	Perumbavoor Municipality	Wings Park Hotels And Resorts Pvt.Ltd Pmc-Xvii/1330- ,P.P.Road,Perumbavoor	Hotels	
31	Pathithodu	Perumbavoor Municipality	Perumbavoor Tourist Home P.P.Road, Evm Junction, Perumbavoor.	Hotels	
32	Pathithodu	Perumbavoor Municipality	Aruna Tourist Home A.M.Road, Perumbavoor.Po.	Hotels	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
33	Pathithodu	Perumbavoor municipality	Manna Tourist Home Manna Tourist Home A.M Road (Near Govt. Hospital) Perumbavoor,683542	Hotels	District Office- 2,Ernakulam
34	Pathithodu	Perumbavoor Municipality	Zaina Bakery And Restaurant A.M.Road, Millumpady, Perumbavoor.	Hotels	
35	Periyar	Vengoor Panchayath	WHISPERING WATERS PANIELY POARU, BUILDING NO: 1V/411A,B,C,D,E,F,G, PANIELY(PO), NEAR KODANAD, ERNAKULAM	Hotels	
36	Kurichilakode	Koovappady Panchayath	SEVENS HOTELS (P) LTD, Kurichilacode.PO. Near Kodanadu Village Office, Kodanadu, Perumbavoor.	Hotels	
37	Mangalapuzha Stream	Varappuzha Panchayath	Gopika Regency Edappally, Panvel Highway - 17, Cochin, Kerala.	Hotels	ESC,Eloor

DISTRICTWISE LIST OF HIGH RISE BUILDINGS ALONG THE BANKS OF PERIYAR (ERNAKULAM)

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
1	Periyar	Aluva Municipality	Cherub'S Sky Villas, Periyar Nagar Residential Association, Metro Gardens Road, Kunnathery Thaikavu Pulinchuvadu, Aluva, Kerala 683101	High Rise Building	District Office_1, Ernakulam
2	Periyar	Aluva Municipality	Mb Heights, Thaikattukara P.O, Company Pady, National Highway 47, Kochi, Kerala 683106	High Rise Building	
3	Periyar	Aluva Municipality	Lord Krishna City Water, Uliyannoor Bridge, Kunnathery Thikavu, Aluva, Kerala 683108	High Rise Building	
4	Periyar	Aluva Municipality	Amity Periyar Vista Payyapilly Lane, Periyar Nagar, Aluva, Kerala 683101	High Rise Building	
5	Periyar	Aluva Municipality	Uni Homes, 19, Bridge Rd, Periyar Nagar, Aluva, Kerala 683101	High Rise Building	
6	Periyar	Aluva Municipality	Uni River Heights, Chembakaserry Kadavu Road, Pwd Quarters, Periyar Nagar, Aluva, Kerala 683101	High Rise Building	
7	Periyar	Aluva Municipality	Abad Aquarius, Perumbavoor - Aluva Road, Thottumugham P. O, Aluva Aluva, Kerala 683105	High Rise Building	
8	Periyar	Aluva Municipality	Abad Aqua Breeze, Opposite Abad Aquarius, (Ksrtc Bus Route) Thottumugham P. O, Aluva State Highway 16, Aluva, Kerala 683105	High Rise Building	
9	Periyar	Aluva Municipality	Periyar Palace, Sh 16, Periyar Nagar, Aluva, Kerala 683101	High Rise Building	
10	Periyar	Aluva Municipality	Lemon Grass Zone, Syrian Church Rd, Kunnathery Thikavu, Aluva, Kerala 683101	High Rise Building	
11	Periyar	Aluva Municipality	Asset Greenford, Metro Gardens, Near Pulinchodu Metro Station, Thaikattukara, P.O, Aluva, Kerala 683106	High Rise Building	
12	Periyar	Aluva Municipality	Confident Symphony, Pazhamthottam - Pulinchode Rd, Kunnathery Thikavu, Aluva, Kerala 683511	High Rise Building	
13	Periyar	Aluva Municipality	Federal Gardens, Kunnathery Thikavu, Aluva, Kerala 683101	High Rise Building	
14	Periyar	Aluva Municipality	Great Water Apartments, Elanjickayil Rd, Periyar Nagar, Aluva, Kerala 683101	High Rise Building	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
15	Edamula Stream	Aluva Municipality	Asset Summit Suites,National Highway 47,Near Scms, Kalamassery,Kochi, Kerala 683106	High Rise Building	District Office 1,Emakulam
16	Edappilly Thodu Leading To Edamula Stream	Aluva Municipality	M/S Skyline OrionApartments,Nethaji Nagar,Edappally,Ernakulam, Kerala 682024	High Rise Building	
17	Periyar	Aluva Municipality	Asset Commander Bay,Thottakkattukara,Aluva, Kerala 683108	High Rise Building	
18	Periyar	Aluva Municipality	Pareckattil Summer Nest,I, Seaport - Airport Rd, Vallathol Padi Vidya Nagar Colony, Thrikkakara,Edappally, Ernakulam,Kerala 682021	High Rise Building	
19	Periyar	Aluva Municipality	Sargam Periyar Banks,Althara-Geda Rd,Thottakkattukara, Aluva, Kerala 683108	High Rise Building	
20	Periyar	Aluva Municipality	Federal City,Karayamparambu,Karukutty, Kerala 683576	High Rise Building	
21	Periyar	Aluva Municipality	Periyar Theeram,Desom,Aluva, Kerala 683102	High Rise Building	
22	Periyar	Aluva Municipality	Anvitha Residency,Bus Stop, Near Kizhakke Desom East,Kalady - Aluva Rd, Desom	High Rise Building	
23	Periyar	Aluva Municipality	Petunia Tower,East, Desom,Aluva, Kerala 683103	High Rise Building	
24	Periyar	Aluva Municipality	Periyar Trinity Sands,Thuruth, AluvaKerala 683102	High Rise Building	
25	Edamula Stream	Kalamassery Municipality	Asset Kasavu,Tog Rd, South Kalamassery, Kalamassery, Kochi, Kerala 683104	High Rise Building	
26	Edamula Stream	Kalamassery Municipality	Fort Dew Apartments,Ems Pass Rd, South Kalamassery, KalamasseryErnakulam, Kerala 683104	High Rise Building	
27	Edamula Stream	Kalamassery Municipality	Riverside Residency,Pallath Ferry Rd, North Kalamassery, Kalamassery, Kochi, Kerala 683104	High Rise Building	
28	Edamula Stream	Cheranalloor Panchayat	Island Inn,Cheranalloor Ferry Rd,Cheranallur, Ernakulam,Kerala 682034	High Rise Building	District Office 1,Emakulam
29	Periyar	Keezhmad Panchayat	Skyline Riverside,Thottumugham, Keezhmad, Kerala 683101	High Rise Building	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
30	Periyar	Keezhmad Panchayat	Asset Silver Streak, Aluva - Perumbavoor Rd, Kuttamassery, keezhmad, Kerala 683105	High Rise Building	District Office_1, Ernakulam
31	Periyar	Choornikara Panchayat	Amity Periyar Sarovar, 4/69, Ferry Rd, Pulinchode Junction, Kunnathery Thikavu, Aluva, Kerala 683106	High Rise Building	
32	Periyar	Choornikara Panchayat	Amity Landmark, Periyar Nagar, Aluva, Kerala 683101	High Rise Building	
33	Periyar	Choornikara Panchayat	Periyar Hermitage Villas And Flats, Sbt Thaikkattukara, Salem - Kochi - Kanyakumari Hwy, Choornikkara, Aluva, Kerala 683106	High Rise Building	
34	Periyar	Choornikara Panchayat	Oyo Home ,Aqua Haven, 18/17 Jyothis Ln, Choornikkara, Aluva, Kochi, Kerala 683501	High Rise Building	
35	Periyar	Aluva Municipality	Ima Periyar House, Desom, Aluva, Kerala 683102	High Rise Building	
36	Periyar	Aluva Municipality	Sfs Aqua Greens, Kalady - Aluva Rd, Aluva, Kerala 683102	High Rise Building	
37	Periyar	Aluva Municipality	Primrose Apartments aluva, Kerala 683101	High Rise Building	
38	Periyar	Aluva Municipality	Periyar Paradise, Swargam Road Aluva, Kerala 683102	High Rise Building	
39	Periyar	Aluva Municipality	Summer Castle Apartmentswargam Road, Desom, Aluva, Kerala 683102	High Rise Building	
40	Mangalappuzha	Aluva Municipality	Nidhi Apartments, Salem - Kochi - Kanyakumari Hwy, Aluva, Kerala 683102	High Rise Building	
41	Periyar	Aluva Municipality	National Puzhayoram, Aluva, Kerala 683102	High Rise Building	
42	Edamula Stream	Choornikara Panchayat	Asset Greenford, Metro Gardens, Near Pulinchodu Metro Station, Thaikkattukara, P.O, Aluva, Kerala 683106	High Rise Building	
43	Edamula Stream	Choornikara Panchayat	Amity Periyar Sarovar, 4/69, Ferry Rd, Pulinchode Junction, Kunnathery Thikavu, Aluva, Kerala 683106	High Rise Building	
44	Edamula Stream	Choornikara Panchayat	Periyar Hermitage Villas And Flats, Sbt Thaikkattukara, Salem - Kochi - Kanyakumari Hwy, Choornikkara, Aluva, Kerala 683106	High Rise Building	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
45	Edamula Stream	Choornikara Panchayat	Aqua Haven, 18/17 Jyothis Ln, Choornikara, Aluva, Kochi, Kerala 683501	High Rise Building	District Office- I, Ernakulam
46	Edamula Stream	Choornikara Panchayat	Silver Lake Apartments, Jawahar Nagar, Choornikara, Aluva, Kerala 683501	High Rise Building	
47	Edamula Stream	Choornikara Panchayat	Dd Global Villagespw Rd, Choornikara, Aluva, Kerala 683106	High Rise Building	
48	Edamula Stream	Choornikara Panchayat	M. B Heights, Thakkattukara P.O Company Pady, National Highway 47, Kochi, Kerala 683106	High Rise Building	
49	Edamula Stream	Choornikara Panchayat	Symphony Apartments- Confident Builders ,Salem Ernakulam Highway, Nh-47, Kunnathery Thikavu, Aluva, Kerala 683107	High Rise Building	
50	Periyar	Aluva Municipality	Abad Aquarius, Perumbavoor - Aluva Road, Thottumugham P. O, Aluva, Aluva, Kerala 683105	High Rise Building	
51	Periyar	Aluva Municipality	Jewel Riverwood, Near market Aluva	High Rise Building	
52	Periyar	Aluva Municipality	Melody, Siva Temple Road Thottakkattukkara Aluva	High Rise Building	
53	Periyar	Aluva Municipality	Asset Siver Swan, Near Aluva Market, Aluva	High Rise Building	
54	Periyar	Aluva Municipality	Periyar Residency, Aluva, Periyar Residency Owners association, X/58, Periyar Residency ,Aluva	High Rise Building	
55	Periyar	Aluva Municipality	R B Green Leaves, Thottakkattukara, Aluva	High Rise Building	
56	Periyar	Aluva Municipality	DD Global Village, Companypady, Aluva, Ernakulam	High Rise Building	
57	Periyar	Aluva Municipality	Santhi Lotus, Near Sree Krishnaswami Temple, Palace Road ,Aluva P.O	High Rise Building	
58	Periyar	Aluva Municipality	City Water, Lord Krishna Builders, Uliyannur, Aluva ,Ernakulam	High Rise Building	
59	Manjaly Thodu	Angamaly Municipality	Doctors Diamond Hill, IIP Road, Angamaly	High Rise Building	
60	Chengal Thodu	Nedumbassery Panchayath	1 BHK (Apple Studio), Apple Studio Apartment Akaparambu Vappalassery P O Nedumbassery	High Rise Building	
61	Periyar	Aluva Municipality	City Castle Commercial Complex, Bypass Road, Aluva	High Rise Building	

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
62	Pathithodu	Vazhakulam Grama Panchayat	ss Homes (P) Ltd Bless Retirement Living Keenepady Junction South Vazhakulam,Ernakulam	Flats & Apartments	District Office-2,Ernakulam
63	Pathithodu	Perumbavoor municipality	Evm Complex Near Private Bus Stand Perumbavoor	Flats & Apartments	
64	Pathithodu	Perumbavoor municipality	ulam Apartments Gokulam Apartments Owners Association OldVallam Road Perumbavoor	Flats & Apartments	
65	Eloor Stream	Eloor Municipality	Federal Greens Club House, Eloor	High Rise Building	ESC,Eloor
66	Eloor Stream	Kadungallor Panchayath	Federal Village Elookkara - Kayntikkara Rd, Kadungalloor, Aluva, Kerala 683110	High Rise Building	
67	Eloor Stream	Alangad Panchayath	Aqua City, Aluva, Kerala 683511	High Rise Building	

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DISTRICTWISE LIST OF HEALTH CARE FACILITIES LOCATED ALONG THE BANKS OF PERIYAR (ERNAKULAM)

Serial no.	River/Tributary	Local Body	HEALTH CARE CENTRES	Type	Jurisdiction
1	Edappilly Thodu Leading To Edamula Stream	Kalamassery Municipality	Maj Hospital, Market Rd, Edappally, Kochi, Kerala 682024	Hospital	District Office- 1, Ernakulam
2	Edappilly Thodu Leading To Edamula Stream	Cheranallor Panchayat	Aster Medicity, Kuttisahib Road Cheranelloor, South Chittoor, Kochi, Kerala 682027	Hospital	
3	Edappilly Thodu Leading To Edamula Stream	Kalamassery Municipality	Punarnava Ayurveda Hospital Pvt Ltd Edappally, Cochin, Kerala, India Pin: 682024	Hospital	
4	Edappilly Thodu Leading To Edamula Stream	Kalamassery Municipality	Al Shifa Hospital, Near Lulu Mall, Nethaji Nagar, Edappally, Kochi, Kerala 682024	Hospital	
5	Edamula Stream	Cheranallor Panchayat	Cimar Fertility Centre, Bus Stop, 3/515-A, Tippu Sulthan Road, Cheranalloor Thykkavu, Kochi, Kerala 682034	Hospital	
6	Periyar	Aluva Municipality	M/s Medi Heaven Hospital, Bank Junction, Aluva	Hospital	
7	Periyar	Aluva Municipality	Lakshmi nursing home, Palace Road, Aluva	Hospital	
8	Manjaly	Angamaly Municipality	Adlux Medicity Pvt Ltd, Cable Junction, Karukutty P.O., Ernakulam	Hospital	
9	Periyar	Aluva Municipality	Karothukuzhi Hospital Pvt Ltd, Karothukuzhi Junction, Aluva-683101	Hospital	
10	Periyar	Aluva Municipality	Anwar Memorial Pain And Palliative Care Society, Santhosh Lane, Aluva, Ernakulam	Hospital	
11	Periyar	Kalady Panchayath	Holy Family Hospital, Chengal, Kalady P O, Ernakulam	Hospital	
12	Manjaly	Angamaly Municipality	Little Flower Hospital & Research Center, M C Road, Angamaly, Kerala	Hospital	

Serial no.	River/Tributary	Local Body	HEALTH CARE CENTRES	Type	Jurisdiction
13	Periyar	Kalady Panchayath	PMIM Hospital, Chowara Road Kalady	Hospital	District Office-1, Ernakulam
14	Periyar	Aluva Municipality	M/S Najath Hospital, Bridge Road, Aluva	Hospital	
15	Periyar	Aluva Municipality	Lakshmi hospital, opp. Zeenath Theatre, SubJail, Aluva	Hospital	
16	Periyar	Kanjoor Panchayath	Vimala Hospital, Kanjoor Ernakulam	Hospital	
17	Pathithodu	Perumbavoor Municipality	Luke Eye Hospital Perumbavoor P.O. Pin-683542	Hospital	
18	Pathithodu	Perumbavoor municipality	M.V Joseph Memorial Hospital O.M Road Opp.Ksrtc Bus Stand Perumbavoor	Hospital	District Office-2, Ernakulam
19	Pathithodu	Perumbavoor municipality	S N Mission Hospital Near K.S.R.T.C Bus Station K.S.R.T.C Road Perumbavoor	Hospital	
20	Pathithodu	Perumbavoor municipality	Sanjoe Hospital A.M Road Perumbavoor P.O Perumbavoor Ernakulam	Hospital	
21	Pathithodu	Perumbavoor municipality	Vatheyyath Hospital Perumbavoor	Hospital	

DISTRICTWISE LIST OF OTHER ESTABLISHMENTS LOCATED ALONG THE BANKS OF PERIYAR (ERNAKULAM)

Serial no.	River/Tributary	Local Body	Establishment	Type	Jurisdiction
1	Periyar	Aluva Municipality	St. Xaviers College For Women, Aluva - Munnar Highway, Periyar Nagar, Aluva, Kerala 683101	College	District Office_1, Ernakulam
2	Edappilly Thodu Leading To Edamula Stream	Kalamassery Municipality	Lulu Mall Edappally Jn, 34/1000, Old Nh 47, Edappally Junction, Nethaji Nagar, Edappally, Kochi, Kerala 682024	Mall Cum Shopping Complex	
3	Edamula Stream	Choorikkara Panchayat	SCMS School Of Technology And Management (Sstm), 42, Salem - Kochi - Kanyakumari Highway, Choorikkara, Ernakulam, Kerala	Educational Institution	
4	Pathithodu	Perumbavoor municipality	Commercial Building Owned By S.K Hussain A M Road Perumbavoor	Commercial Building	District Office-2, Ernakulam
5	Pathithodu	Perumbavoor municipality	Tms Centre, Perumbavoor Opposite Jasmin Torist Home Am Road Perumbavoor	Mall Cum Shopping Complex	

ANNEXURE - XI 3 (6)

DISTRICTWISE LIST OF INDUSTRIES LOCATED ALONG THE BANKS OF PERIYAR (THRISSUR)

Serial no.	River/Tributary	Local Body	Industry	Type	Jurisdiction
1	Periyar	Eriyad panchayath	Three Star Marine Exports Xxiii/452 Arattuvazhi Eriyad P.O. Eriyad	Fisheries	District Office, Thrissur
2	Periyar	Poyya panchayath	Anna Auto Services P.O. Mala Pallipuram, Thrissur	Automobile Servicing	
3	Periyar	Kodungallur Municipality	Heritage Auto Motives P O Kottapuram	Automobile Servicing	
4	Periyar	Kodungallur Municipality	M/S.Marwa Fish Peeling Unit Pulloot	Fish Processing	
5	Periyar	Kodungallur Municipality	Four G Plus Group P.O Kodungallur, Thrissur-680664	Automobile Servicing	
6	Periyar	Kodungallur Municipality	Peeling Shed Owned By K.M. Fisheries Chappara, Pullut. P.O. Kodungallur Thrissur	Fish Processing	
7	Periyar	Kodungallur Municipality	Gourisankar Hospital Arakulam Road , Kodungallur	Pesticides/Insecticides/Fungicides/Herbicides/Agrochemical Formulation	
8	Stream leading to periyar	Mala Panchayath	Manison Automobile And Engineering Ashtamichira P.O, Thrissur, Kerala-680731	Automobile Servicing	
9	Stream leading to periyar	Mala Panchayath	Kripa Bone Industries Annallur P.O. Thrissur District	Bone Industries	
10	Stream leading to periyar	Mala Panchayath	Kerala Agro Machinery Corporation Ltd, Naithakudy, Mala, Thrissur District	Agro Industries	
11	Stream leading to periyar	Mala panchayath	Neem Care Hospital Mala	Pesticides/Insecticides/Fungicides/Herbicides/Agrochemical Formulation	
12	Stream leading to periyar	Mala Panchayath	Manison Auto Centre Ashtamichira P O, Puliyilakunnu Road, Thrissur-680731	Automobile Servicing	

ANNEXURE. X14(a)

DISTRICTWISE LIST OF HOTELS LOCATED ALONG THE BANKS OF PERIYAR (THRISSUR)

Serial no.	River/Tributary	Local Body	Hotels	Type	Jurisdiction
1	Periyar	Kodungallur Municipality	Seashore Residency Opp. Craft Hospital, Kodungallur, Thrissur	Hotels	District Office, Thrissur
2	Periyar	Kodungallur Municipality	Hotel Palace En Paradise Hotel Palace En Paradise Near Ksrte Bus Stand Kodungallur Thrissur	Hotels	
3	Periyar	Kodungallur Municipality	Hotel Indraprastham East Nada , Kodungallur Thrissur	Hotels	
4	Periyar	Kodungallur Municipality	Hotel Park Residency Kodungallure Thrissure Dt Pin 680664	Hotels	
5	Periyar	Kodungallur Municipality	Kallada Residency Kallada Residency Santhipuram, Kodungallur, Thrissur, Pin-680 668	Hotels	
6	Periyar	Kodungallur Municipality	Hotel Kairali Tks Puram Kottappuram P.O Kodungallur	Hotels	
7	Periyar	Kodungallur Municipality	Seashore Residency Opp. Craft Hospital, Kodungallur	Hotels	
8	Periyar	Kodungallur Municipality	Rahath Auditorium Pullut.P.O Thrissur District Pin 680663	Hotels	
9	Periyar	Kodungallur Municipality	Hotel Indraprestham East Nada , Kodungallur Thrissur	Hotels	
10	Periyar	Kodungallur Municipality	S M Regency Near Phoenix School, Marappalam, Methala P O, Kodungallur, Thrissur -680669	Hotels	
11	Stream leading to periyar	Mala Panchayat	Hotel Souparnika Restaurant Ashtamichira P.O, Thrissur-680731	Hotels	
12	Stream leading to periyar	Mala Panchayat	Anupama Bar And Restaurant Mala Thrissur	Hotels	

Serial no.	River/Tributary	Local Body	Hotels	Type	Jurisdiction
13	Stream leading to periyar	Mala Panchayat	Royal Chef Caterers Pazhookkara, Analloor P.O,Chalakyudy, Thrissur, Kerala-680731 Thrissur	Catering	District Office, Thrissur
14	Stream leading to periyar	Mala Panchayat	Right Way Resturant P.O Mala, Mala, Thrissur	Hotels	
15	Stream leading to periyar	Mala Panchayat	Flower Oven Fresh Restaurant Mala P O, Thrissur-680732	Hotels	
16	Stream leading to periyar	Mala Panchayat	K.R.J Catering Services Mala. Po. Mala Thrissur- 680732	Catering	
17	Stream leading to periyar	Mala Panchayat	Food Point Caterers And Events Mala P.O, Thrissur, Kerala-680732	Catering	
18	Chalakkudy river leading to periyar	Annamanada Panchayath	Kichu'S Catering Service Poovathussery P O	Catering	
19	Chalakkudy river leading to periyar	Annamanada Panchayath	Spicy Catering Unit Poovathussery P O	Catering	
20	Chalakkudy river leading to periyar	Annamanada Panchayath	Symphony Hotels & Resorts Annamanada P.O. Thrissur	Hotels	
21	Chalakkudy river leading to periyar	Annamanada Panchayth	Akshaya Catering Meladoor, Meladoor P O, Thrissur,680741	Catering	
22	Chalakkudy river leading to periyar	Annamanada Panchayath	The Nadumuri Inn Annamanada P.O. Thrissur	Hotels	

DISTRICTWISE LIST OF HEALTH CARE CENTRES LOCATED ALONG THE BANKS OF PERIYAR (THRISSUR)

Serial no.	River/Tributary	Local Body	Health Care Centres	Type	Jurisdiction
1	Chalakkudy river leading to periyar	Kuzhur panchayath	Ayurleela Ayurveda Hospital Eravathoor P O, Kuzhur, Mala	Health Care Establishment	District Office, Thrissur
2	Periyar	Kodungallur Municipality	Craft Hospital And Research Centre Chandapura, Kodungallur, Thrissur - 680664	Hospitals	
3	Periyar	Kodungallur Municipality	Santhi Nursing Home Santhi Nursing Home Padakulam Road, Kodungallur P.O Thrissur, Kerala-680664	Hospitals	
4	Periyar	Kodungallur Municipality	Taluk Head Quarters Hospital Kodungallur Kodungallur	Health-Care Establishment (As Defined In Bmw Rules)	
5	Periyar	Kodungallur Municipality	Dr.Augustine'S Arya Vaidya Asramam Ayurveda Hospital Thiruvachikulam, Kodungallur	Ayuvedic Nursing Homes/ Hospitals (Except Health Clubs)	
6	Periyar	Kodungallur	Medicare Hospital Medicare Hospital Kodungallur	Hospitals	
7	Periyar	Kodungallur Municipality	E.G.M Mother & Child Hospital(Panickers Hospital) West Nada,Kodungallur,Thrissur- 680664	Health-Care Establishment (As Defined In Bmw Rules)	

ANNEXURE X14(e)

DISTRICTWISE LIST OF OTHER ESTABLISHMENTS LOCATED ALONG THE BANKS OF PERIYAR (THRISSUR)

Serial no.	River/Tributary	Local Body	ESTABLISHMENTS	Type	Jurisdiction
1	Periyar	Poyya Panchayath	Rose Motors P.O Mala, Pallipuram, Thrissur-680732	Service Station	District Office, Thrissur
2	Periyar	Poyya Panchayath	Highview Arcade Auditorium Pooppathy P.O, Thrissur-680733	Kalyanamandapam/Auditorium	
3	Periyar	Poyya Panchayath	Mandharam Auto Service Station & Workshop Malapallipuram, Mala P.O Thrissur	Service Station	
4	Periyar	Kodungallur Municipality	E K D Auditorium Mannarathazham, Pullut P.O, Kodungallur, Thrissur, Kerala-680663	Kalyanamandapam/Auditorium	
5	Periyar	Kodungallur Municipality	Pulikkathara Service Station Opp.Medicare Hospital T.K.S Puram D.No.Xii/3A Kodungallur Thrissur-680505	Service Station	
6	Periyar	Kodungallur Municipality	Hyson Motors (P) Ltd Opp.Medicare Hospital T.K.S Puram D.No.Xii/3A Kodungallur Thrissur-680505	Service Station	
7	Periyar	Kodungallur Municipality	Car Care Auto Service Centre Near Govt K K T M College Bus Stop P O Pullut Kodungallur Thrissur Dt	Service Station	
8	Periyar	Kodungallur Municipality	Kbees Durbar Hall Near Pullut Bridge, Kavilkadavu, Kodungallur P.O, Thrissur, Kerala-680664	Auditorium	
9	Periyar	Kodungallur Municipality	Safa Enterprises Padanna Azhikode Jetty P.O Thrissur		
10	Periyar	Kodungallur Municipality	Centro Mall Near Municipal Bus Stand, Kodungallur, Thrissur	Mall Cum Shopping Complex	
11	Stream leading to periyar	Mala Panchayat	Megha Auto Repairing Workshop & Service Station Ashtamichira P.O, Thrissur-680731	Service Station	
12	Stream leading to periyar	Mala Panchayat	Top Care Newgeneration Car Service P.O Kuruvilassery, Valiyaparambu, Thrissur-680732	Service Station	
13	Stream leading to periyar	Mala Panchayat	Surya Dairy Farm Ashtamichira P.O, Marekaad, Thrissur-680731	Diary Farm	
14	Stream leading to periyar	Mala Panchayat	Alwin Service Station Ashtamichira P.O, Thrissur-680731	Service Station	
15	Chalakkudy river leading to periyar	Annamanada Panchayath	Thomson Diary Farm Thomson Diary Farm, Painattukara, Meladoor P.O, Thrissur Dt., Pin -680741	Diary Farm	

ANNEXURE - X14(d)

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