

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
(SOUTHERN ZONE BENCH, CHENNAI)  
Original Application No. 24 of 2021**

BETWEEN

O.A.Ninan,  
S/o. O.N. Abraham,  
Manager,  
Grace Mount Residential School,  
Kumbanadu P.O.,  
Thiruvalla,  
Pathanamthitta,  
Kerala-689 547

...Applicant

AND

The State of Kerala,  
Rep. by its Secretary,  
Directorate of Environment and Climate Change,  
4<sup>th</sup> Floor, KSRTC Bus Terminal,  
Thampanoor,  
Thiruvananthapuram  
& 4 Others

...Respondents

**REPLY STATEMENT FILED BY THE 4<sup>th</sup> RESPONDENT,  
KERALA WATER AUTHORITY.**

The 4<sup>th</sup> respondent herein is the Kerala Water Authority and sincerely states their statement of facts as follows:-

1. The 4<sup>th</sup> respondent humbly submits that the Kerala Water Authority (for short the Authority) is a statutory body established under section 3 of the Kerala Water Supply and Sewerage Act, 1986 (Act 14 of 1986) (for short the Act). This enactment is also aimed to provide for the development and regulation of water supply and waste water collection and disposal in the State of Kerala and for matters connected there with. The Authority has following wide and unique powers and functions, provided under Section 14 and 15 of the Act respectively, namely:-

Functions of the Authority:- The Authority shall perform all or any of the following functions, namely:-

(i) preparation, execution, promotion, operation, maintenance and financing of the schemes for the supply of water and for the disposal of waste water;

- (ii) rendering all necessary services in regard to water supply and collection and disposal of waste water to the Government and on request to private the private institutions or individuals;
- (iii) preparation of State Plans for water supply and collection and disposal of waste water on the directions of the Government;
- (iv) fixation and revision of tariffs, taxes and charges of water supply and maintenance service in the areas covered by the water supply and waste water systems of the Authority;
- (v) establishment of state standards for water supply and waste water services;
- (vi) all functions, not stated herein which were being performed by the Public Health Engineering Department of the Government before the commencement of this Act;
- (vii) assessment of the requirements for manpower and training in relation to water supply and sewerage services in the State;
- (viii) carrying out applied research for the efficient discharge of the functions of the Authority;
- (ix) making provision for the supply of wholesome water and efficient sewerage services to the people in the State;
- (x) taking such other measures as may be necessary to ensure water supply in times of emergency; and
- (xi) such other functions as may be entrusted to the Authority by the Government by notification in the Gazette.

**Powers of the Authority:-**

- (1) The Authority shall, subject to the provisions of this Act, have power to anything which may be necessary or expedient for carrying out its functions under this Act.

(2) without prejudice to the generality of the foregoing provisions, such power shall include the power-

(i) to obtain such periodic or specific information from any local body as it may deem necessary;

(ii) to prepare and carry out schemes for water supply and sewerage and to exercise all powers and perform all functions relating thereto: provided that the power of sanctioning schemes costing more than rupees one crore shall be exercised only with the previous approval of the Government;

(iii) to lay down the schedule of fees for all services rendered by the Authority to the Government, local bodies, institutions or individuals, to fix or amend tariffs and charges for water supply and sewerage services and collect all such fees and charges for these services as may be prescribed: Provided that any revision of tariffs and charges for water supply and sewerage services shall be made only with the previous approval of the Government;

(iv) to enter into contract or agreement with any person, firm or institution as the Authority may deem necessary, for performing its functions under this Act: Provided that any contract or agreement involving more than rupees one crore shall be entered into by the Authority only with the previous approval of the Government;

(v) to adopt its on budget annually subject to the previous approval of the Government;

(vi) to abstract water for drinking purpose from any natural source and with the permission of the Government for other purposes and dispose of waste water;

(vii) to borrow money, issue debentures, to obtain subventions, capital contributions, loans and grants, to incur expenditure and manage its own funds;

(viii) to grant loans and advances to such persons or authorities as the Authority may deem necessary for performing the functions under this Act;

(ix) to acquire, possess and hold lands and other property and to carry any water or sewerage works through, across, over or under the highway, road, street or place and, after reasonable notice in writing to the owner or occupier, into, through, over or under any building or land;

(x) to accept gifts in kind and in cash with the previous approval of the Government.

2. **Para-1:** (i) It is submitted by the 4<sup>th</sup> respondent that the Kerala Water Authority has proposed to implement Water Supply Scheme for the general improvement of public health and social living status of people of Seven Grama Panchayaths viz. Puamasttom, Kallupara, Ezhumattoor, Kunnamthanam, Eraviperoor, Koipuram and Thottappuzhassery. These are seven adjacent Grama Panchayats situated in the hilly villages of Pathanamthitta District and the benefitted population of the scheme is 135928 as per the 2011 censuses. Most of the people belong to socially and economically backward classes. As done in the case of every new proposal of Water Supply Schemes in Kerala Water Authority, detailed survey and investigation have been carried out for planning a viable proposal of new WSS covering the entire area of the above panchayats. After conducting detailed survey, a comprehensive scheme is designed for implementation. It is further submitted that design of the scheme has been prepared and approved by a team of engineers who are experts in the field. The plant of 40 mld capacity integrating all modern techniques including waste water treatment for reuse sludge handling & disposal facilities is proposed in survey No.53/1 (350cent) & 52/12 (8 cent) near Muttaman junction in Koipuram village. After fixing the suitable location/position for the WTP according to the topography, locations of other components viz Intake Well, Storage/service reservoirs in the seven panchayats were fixed. The land, bearing survey No.53/1 (50cents) & 52/12 (8 cent) is identified as the most suitable site for the construction of WTP. This land is

having a topography to construct the components of WTP, soil is hard so as to avoid expensive piling works for foundation, site is above the maximum flood level of 2018, and treated water can be distributed within a short distance to all the Grama Panchayats.

(ii). Administrative Sanction for Rs.42.35 crore has been accorded for phase I of the scheme after vetting the Detailed Project Report at various level office of KWA & Govt. of Kerala vide AS No.GO(Rt) No.269/2017/WRD dated 30.03.2017. Also Rs.85 crore is earmarked in the budget speech of 2017-18 of Kerala State for phase II of the Scheme (Annexure R1)

(iii). It is respectfully submitted by the 4<sup>th</sup> respondent that this petition is filed by the applicant/Sri.O.A.Ninan. The core issue is related to the acquisition of land owned by Sri.Joe Pannikkottu and his relatives have filed 3 numbers of cases one after other in the Hon'ble High Court of Kerala against the proposal for acquisition of this land which is found by Kerala Water Authority absolutely suitable for the construction of Water Treatment Plant of this proposed Water Supply Scheme. The applicant has also filed petition before the Hon'ble High Court with the same versions as of the land owner and the details of cases as detailed below. There will be no harm to the water body from which water is proposed to be extracted to cater the drinking water needs of the inhabitants of seven panchayats. This source is selected by expert team of Kerala Water Authority after considering all aspects. No effluent or rejects from the proposed water treatment plant will be discharged to the ground. Proper waste water recycling unit will be constructed along with the Water Treatment Plant as per CPHEEO norms.

3. **Para 2 & 3:** It is humbly submitted that it is clear from the **Annexure A2** submitted by the applicant that the 2<sup>nd</sup> and 3<sup>rd</sup> respondents of WP(c) No.13408/2019 has complied with the judgment of the Hon'ble High Court of Kerala. The contention stated in the Writ Petition is mere speculations without any scientific backing and legal sanctity. Not even a single scrap of paper has been produced by the petitioner which will go to show

that erecting a water treatment plant will cause any harm to the ecology or make the environment polluted. The very contention of the applicant that the sludge forms out of filtering water causes environmental pollution is only a misconception. The main sediments consequent to the water treatment is the mud which means earth, upon which the human race is sprouted. The process of water treatment never emanates or gushes any sludge, filth or squalor.

4. **Para 4 & 5:** It is submitted that the respondents have never stated that they have stopped the land acquisition proceedings and the project itself and the applicant has not submitted any proof for his version.

5. **Para 6:** It is humbly submitted that the project has never been stopped and land acquisition proceedings were continued as per law and the necessity of conducting an Environmental Impact Assessment (EIA) as pointed out by the applicant is not required for water supply schemes, since water supply project is not an enlisted project as per Notification dated 14.09.2006 issued by Ministry of Environment & Forests.

6. **Para 8:** (i) It is submitted that Kerala Water Authority has no plan to discharge the wash water generated from the TP to the nearby land or water body. Properly designed wash water recycling system as per CPHEEO norms will be adopted at the time of construction. Wash water recycling system will be a component of the treatment plant along with various other components of the plant. Design of wash water recycling system and effective management of filter backwash water and sludge will be done during construction and operation of the plant.

(ii) It is further submitted that in a Water Treatment Plant, water collected from the surface water source such as river, Lake etc. is treated by various processes so as to get the water satisfying the Central Public Health and Environmental Engineering Organization (CPHEEO) accepted standards of drinking water.

(iii) It is submitted that the purpose of water treatment plant is to remove the impurities (foreign materials present in natural water) contained in the water collected from the source and to convert it to potable water. In Kerala the major source of water for a water supply scheme is surface water i.e. a river or a lake. The impurities present in such waters are clay/minute sand particles which makes the water turbid. But these impurities are not toxic. Hence the aim of water treatment is to remove these tiny clay/sand particles. Any micro-organisms such as bacteria present in water will also be removed by disinfection by chlorination. These tiny particles of clay can be removed by keeping the water quiet for some time (sedimentation) as we do in our houses. But very fine particles will take more time to settle down and the impurities is colloidal form will not settle. Hence, in water treatment plants some compounds like (Alum and Lime) aluminum Sulphate will be added to raw water to enhance the settling of colloidal and very fine particles by forming flocs so that the time for settling will be reduced drastically also lime will be added to adjust the PH to potable standard. The quantity o Alum land Lime to be depends on the level of turbidity. During summer months the turbidity of raw water will be very low so that the use o Alum and Lime will be minimum. Filtration through a filter bed (layer of sand or any other type of inert material) will further remove very fine particles and tiny flocs that are not removed by settling. So, the residue from a water treatment plant will contain the nontoxic clay/sand particle. In water treatment plant the residues are generated from 2 locations, one is from the sedimentation basin and the other is from the filter bed during the cleaning of the filter bed which is known as back washing of filter beds. The residue from the sedimentation basin (sludge) is small in quantity and is stable due to the absence of organic matter. So the sludge is allowed to remain in the sedimentation basin for some time and is removed on monthly or bimonthly basis depending upon the quantity of sludge accumulated in the sedimentation chamber.

(iv) It is further submitted that proper sludge management system for disposal of sludge is planned with the construction of WTP, for the safe disposal / reuse of sludge generated from the treatment plant as per clause 7.7.1 of CPHEEO manual (Annexure R2). The system includes Sludge thickening and sludge dewatering either by using drying bed, sludge lagoon, filter press, vacuum filtration or centrifuge. The dried sludge can be used for land fill, brick and tile manufacturing etc. It is possible to reclaim the Alum content of the sludge if found necessary. It is humbly submitted that KWA is operating more than 200 Nos. of WTPs in all over Kerala with Maximum capacity of 174 mld at Kozhikode. No adverse effect on environment either surface water or ground water is reported so far due to the operation and maintenance of these units, anywhere from Kerala.

7. **Para-9:** (i) It is submitted that Kerala Water authority prepares the detailed project report based on the run off data of the river sources which is available now through website. The source of the scheme is Pampa river which originates at Pulichimala hills in Peerumedu Plateau at an attitude of 1650 m and is having a catchment area of about 2235 sqkm. It is flowing 176 km long, the river is charged by about 288 rivulets and streams. Kakkiyar, Kallar, Kakkad river, Azhutha etc. are its main tributaries.

(ii) It is further submitted that also there are many hydroelectric projects in the upstream of Pampa river. The Sabarigiri hydroelectric project has three dams. Kakki, Anathodu and Pampa. Gavi, Kochupampa are other dams in the upstream side. The tail water of these hydroelectric projects is let in to Kakkad River which adds to the inflow of water to Pampa River. Average discharge data of Pampa River for the last year is 64,987 cumecs. Last 10 years average flow is 270.88 cumecs. (Based India Water Resources Irrigation System data).

(iii) It is submitted that the studies conducted in connection with PAVLP (Pampa Achenkovil Vaippar Link Project) by National Water

Development Agency in Pampa and Achenkovil reported that this river had 3127 million cubic meters of surplus water. Hence, by withdrawing 40 mld of water for drinking purpose will not have any impingement and entrapment impacts in the holy river Pampa. There will not be any ecological imbalance by extracting 40 million liter of water daily as there is sufficient run off in the Pampa River every day during lean months also.

(iv) It is further submitted that the pump sets proposed in the WTP site are of total capacity 610 HP and for intake well is of capacity 400 HP. Now a days, water authority is using Green pumps which are specially developed with few rotating parts and hence the sound emitted from these pumps is less than 65 decibels – the WHO standard limit of noise pollution. The present location of WTP does not have any eviction of people and hence it will not cause any social impact to the people. The SIA (Social Impact Assessment) study has carried out earlier and is attached herewith for reference. The final report based on the SIA study is also done (attached as Annexure R3).

(v) It is humbly submitted that also in the land proposed for WTP, there is an abandoned quarry and it is very clear that there will not be any adverse effect in the construction of WTP or working of WTP rather than the quarrying and mining activities. It is submitted that the cost analysis of WTP location near the source and at the proposed site are done and the proposed site is found as ideal considering the distribution of treated water to 7 panchayaths, recurring cost of operation and maintenance, increased investment for the structural stability of the water holding Structures in the loose and slushy soil (attached as Annexure R4). Cost comparison for laying several kilometers of pipelines will not be taken, as KWA is a service delivery organization and drinking water is a primary need of the citizens of every nation. Also the location of service reservoirs will decide the length of pipelines to be laid not the location of WTP. The general policy of the Water Authority is to make comprehensive water supply schemes, considering the production and operation cost of treated water.

(vi) It is submitted by introducing Jala Jeevan Mission Programme the Government of India has decided to provide functional house hold tap connection to each and every households in Panchayath area by taking the State Govt., Grama Panchayath and beneficiaries as its stake holders. This can be materialized in these seven Panchayaths by providing 19105 functional household tap connections only after completing this project. The Govt. declared the deadline of completing the project of providing house connection is March, 2024. As an organization, KWA have to design the WTP Schemes benefitting the inhabitants in an optimal manner with minimum initial and recurring expenditures. By making localized water supply schemes after constructing well cum pump houses and TP and treatment system for each Panchayath the operation and running cost will be increased to a great extent in addition to the initial investment required.

(vii) It is further submitted that the cost of electricity charges and charges of operation and maintenance became a huge burden to this organization. So to avoid wastage of public money comprehensive schemes are designed now a days and making it functional. it is the policy matter of Govt. and this organization. The cost of a water supply project depends on cost for pumping lines and machinery for treated water also. All these factors were considered by experienced engineers of Kerala Water Authority and prepared a suitable design for the present water supply scheme. The location of water treatment plant depends on many factors out of which the hydraulic feasibility and economic considerations are of top most priority. The petitioner is trying to misguide the Tribunal by stating that the waste disposal system is the only criteria of deciding the location of the water treatment plants.

#### **SITING OF THE PROJECT**

8. **Para 4:** It is humbly submitted that the cost analysis of WTP location near the source and at the proposed site are done and the proposed site is found as ideal considering the distribution of treated water to 7 panchayaths,

recurring cost of operation and maintenance, increased investment for the structural stability of the water holding structures in the loose and slushy soil (attached as Annexure R4). It is submitted that all components of a water supply scheme are important. The major and largest component is the treatment plant with large number of electrical, electromechanical components and sophisticated civil structures such as filter beds. But in a well cum pump house there will be raw water pump sets only. Moreover, it is impossible to locate a well cum pump house at a distant location from the source as the raw water has to enter into the well freely and directly from the river. Usually the floor level of the pump house is placed above the maximum flood level. Being a single circular concrete structure, it is easy to construct the intake well up to a level above the maximum flood level, as done in all the existing water supply projects. In the case of treatment plant since there are many civil structures such as aerator, clarifloculators, filter houses, chemical house, laboratory clear water reservoirs electrical rooms machineries etc. which are to be kept safe from flooding, it is practically not possible to place all components of a water treatment plant above maximum flood level in an area susceptible to flooding. If we try for this, the cost of construction will be doubled. During the last high flood in August, 2018 many treatment plants constructed in low laying areas were flooded with water. The renovation of an intake well after flooding is easy but the renovation of a water treatment plant is very difficult and time consuming as the filter media in the filter beds would completely chock out by the muddy flood water. It is not true that this location is in a residential area and near to schools and hospitals. The location of the water treatment plant is fixed based on technical and hydraulic feasibility and economic viability proximity to source is only one factor as per CPHEEO manual. It is submitted that the proposed location of Treatment Plant is an ideal one. The aerial view of the schemes area is attached (Annexure R5) which shows the location of intake well, water treatment plant and service reservoirs. From the lay out sketch it can be seen that the proposed location for the WTP is located at the center part of the scheme area so that treated water can be easily conveyed to

the service reservoirs at various locations. KWA has proposed the project after conducting details field study by the Project Planning and Design Wing (PPD) of KWA. The site for the Treatment Plant is proposed as per the norms of plant siting in CPHEEO manual, clause 2.2.2 (Annexure R6). The applicant has attached copy of a hand book which is not mandatorily to be followed.

9. **Para 6 & 7:** (i) It is humbly submitted that the location of the water treatment plant has been identified on the basis of technical, hydraulic and economic considerations. The water supply scheme is designed by a team of technical experts of Kerala water authority. KWA has proposed the project after conducting detailed field study by the Planning Wing (PPW) of KWA. The site for the Treatment Plant is proposed as per the norms of plant siting in CPHEEO manual, clause 2.2.2 (Annexure R6).

(ii) It is submitted that the applicant states that the best method of waste water disposal is to discharge the waste water directly to the river. But, in fact discharging the residue from a water treatment plant to the river is not the best method of disposal but it is one of the many methods of disposal. In modern treatment plants waste water will be recycled and proper sludge handling & disposal facilities are proposed along with water treatment plant. Kerala Water Authority designed this water supply scheme with proper water treatment plant for these panchayats. KWA proposes modern scientific waste water disposal system rather than discharging the waste water directly to the river. In such a situation, the contention of the applicant (will not exist) is baseless and so it will not stand.

10. **Para 8:** (i) It is humbly submitted that Kerala Water Authority has no plan to discharge the waste water from the treatment plant to the nearby land or natural drain. Rather the waste water will be recycled & reused, sludge will be disposed as per CPHEEO Norms. As per the record mentioned by the petitioner, the average BOD of River water is 4.50 mg/l. The point of sampling of water is not mentioned in the record. Point of sampling has a major importance with respect to BOD. BOD is a term representing the organic

pollution of water and is the amount of oxygen required for decomposition of biodegradable organic matter under aerobic conditions. Leaves and branches of trees, organic matter reaching the river during rain from nearby area, mainly contribute to BOD of river water if intentional external pollution by depositing organic waste is not there. When biological waste is discharged into a flowing water body it starts decaying and the BOD increases. BOD of a water body is closely related to a term **“self-purification of natural streams”**. The **“Dissolved Oxygen Content”** of a flowing water body which is inversely proportional to the BOD, starts decreasing to a certain “time and distance” and starts increasing at critical point. After a certain time and distance from the critical point, DO become stable and this is the indication of “No BOD”. The **Self-cleaning** capacity of a **river** refers to the process by which pollutants discharged into a **river** gets cleaned by natural process. Factors like the flow of the river and the presence of bacteria which decomposes pollutants into harmless substances contribute to the **self-cleaning** capacity of a **river**. Relevant portion of article regarding “self-cleaning of natural streams” is produced as Ext.R3(10).

(ii) It is further submitted that since facts are as above, the average BOD of the whole stretch of river recorded at different times and different locations have no relevance on accessing the BOD of raw water proposed to be taken for this Water Supply Scheme. The applicant has stated that the BOD of sludge will become 450 mg/l, if the BOD of river water is 4.50 mg/l. Actually, BOD will be eliminated by keeping the water in contact with atmospheric air. The first process in a water treatment plant is aeration and BOD will be considerably decreased in aeration process. Almost all the processes in a water treatment plant helps to reduce the BOD of raw water, if any, by keeping the water in contact with atmospheric oxygen and other oxidants. Back washing of filter bed is carried out using chlorinated water. Chlorine is considered as a powerful oxidizing agent. During the process of recycling also the wash water

come in contact with abundant atmospheric air while flowing. At the end of the above process, the BOD of the sludge will be practically zero.

11. **Para 9:** It is submitted that copy of 3.14 of the feasibility report is not produced by the applicant. KWA has proposed a water treatment plant incorporating all modern techniques including waste water treatment with reuse and sludge handling & disposal facilities. No waste water will be discharged in to the nearby land as alleged by the applicant. In such a situation chances of flooding the housing and agricultural areas is ruled out.

12. **Para 10:** It is humbly submitted that as KWA is not proposing to discharge wash water to nearby land, the consequence as alleged by the applicant is rule out. KWA has proposed to construct a modern water treatment plant incorporating all modern techniques including recycling of filter back wash water and sludge handling and disposal facilities. No waste will be discharged into the nearby land as alleged by the applicant. It is already stated that KWA has proposed a water treatment plant incorporating all modern technique including waste water treatment with recycling and reuse and sludge handling & disposal facilities. No waste will be discharged in to the nearby land as alleged by the applicant.

13. **Para 11:** (i) It is humbly submitted that the purpose of a water treatment plant is to remove the impurities (foreign materials present in natural water) contained in the water collected from the source and to convey it to portable water. In Kerala, the major source of water for a water supply scheme is surface water i.e. a river or a lake. The impurities present in such waters are only clay/minute sand particles which makes the water turbid. But these impurities are not toxic. Hence, the aim of water treatment is to remove these tiny clay/sand particles. Any micro-organisms such as bacteria present in water will also be removed by disinfection by chlorination. These tiny particles can be removed by keeping the water for some time (sedimentation) as we do in our houses. But very fine particles will take more time to settle down and the impurities is colloidal form will not settle. Hence, in water treatment

plant some compounds like (Alum and Lime) Aluminum Sulphate will be added to raw water to enhance the settling of colloidal and very fine particles by forming flocs so that the time for settling will be reduced drastically also lime will be added to adjust the PH to potable standard. The quantity of alum and Lime to be added depends on the level of turbidity. During summer months the turbidity of raw water will be very low so that the use of Alum and Lim will be minimum. The usage of chemicals in a WTP clearly depends on turbidity of raw water and the optimum quantity is based on the daily test results of raw water in a WT by Jar test. The commonly used coagulant for removal of turbidity of water is Alum (Aluminium Sulphate). Calcium hydroxide (Lime) is added to normalize the pH of water and also to aid flocculation. It is not compulsory to add Alum and lime in all seasons. The dosage is very often of the order of 10 -15 mg/lire. The dosage is very often or the order of 10-15 mg/lire. The major ingredient of the wash water will be the impurities (mainly mud and silt) separated from the river water and contain traces of chemicals which are not at all harmful to the environment. Filtration through a filter bed (layer of sand or any other type of inert material) will further remove very fine particles and tiny flocs that are not removed by settling. So, the residue from a water treatment plant will contain the nontoxic clay/san particle. In a water treatment plant, the residues are generated from 2 locations one is from the sedimentation basin and the other is from the filter bed during the cleaning of the filter bed which is known as back washing of filter beds. The residue from the sedimentation basin (sludge) is small in quantity and is stable due to the absence of organic matter. So, the sludge is allowed to remain in the sedimentation basin for some time land is removed on monthly or bimonthly basis depending upon the quantity and is stable due to the absence of organic matter. So, the sludge is allowed to remain in the sedimentation basin for some time and is removed on monthly or bimonthly basis depending upon the quantity of sludge accumulated in the sedimentation chamber.

(ii) Proper sludge management system for disposal of sludge is planned with the construction of WTP, for the safe disposal/reuse of sludge generated from the treatment plant as per clause. 7.7.1 of CPHEEO manual (Annexure R2). The system includes Sludge thickening and sludge dewatering either by using drying bed, sludge lagoon, filter press, vacuum filtration or centrifuge. The dried sludge can be used for land fill, brick and tile manufacturing et. It is possible to reclaim the Alum content of the sludge if found necessary. It is humbly submitted that KWA is operating more than 200 Nos. of WTPs in all over Kerala with maximum capacity of 174 mld at Kozhikode. No adverse effect on environment is reported so far due to the operation and maintenance of these units, anywhere from Kerala.

14. **Para 12:** It is humbly submitted that the applicant has stated that the best method of waste water disposal is to discharge the wash water directly to the river. But, in fact, discharging the residue from a water treatment plant is not the best method of disposal but it is one of the many methods of disposal. Discharging any kind of waste to water bodies is more harmful than land disposal. Hence, in modern treatment plants wash water will be recycled and proper sludge handling & disposal facilities are proposed along with water treatment plant.

**Impact of drawal of water:**

15. **Para 13, 14, 15, 16, 17, 18:** (i) It is humbly submitted that the source of the scheme is Pampa River which originates at Pulichimala hills in Peerumedu Plateau at an attitude of 1650 m and is having a catchment area of about 2235 sqkm. It is flowing 176 km long; the river is charged by about 288 rivulets and stream. Kakkiyar, Kallar, Kakkad river, Azhutha etc. are its man tributaries.

(ii) It is further submitted that also there are many hydroelectric projects in the upstream of Pampa River. The Sabarigiri hydroelectric project has three dams, Kakki, Anathodu and Pampa. Gavi, Kochupampa are other

dams in the upstream side. The tail water of this hydroelectric project is let in to Kakkad River which adds to the inflow water to Pampa River. It is submitted that the average discharge data of Pampa River for the last year in 64.987 cumecs. Last 10 years average flow is 270.88 cumecs. (Based India Water Resources Irrigation System data).

(iii) It is submitted that the studies conducted in connection with PAVLP (Pampa Alchenkovil Vaippar Link Project) by National Water Development Agency in in Pampa and Achenkoil reported that river had 3127 million cubic meters of surplus water. Hence, by withdrawing 40 mld of water for drinking purpose will not have any impingement and entrapment impacts in the holy River Pampa. There will not be any ecological imbalance by extracting 40 million litre of water daily as there is sufficient run off in the Pampa River every day during lean months also.

(iv) It is further submitted that Kerala Water Authority usually prepares the project after detailed investigation of the source and scheme area. The impact of the withdrawal of water and the schemes in the up streams and down streams of the source are taken into account before fixing the source of a new scheme. The average flow of Pampa River is 270.88 m<sup>3</sup> /s for the past 10 years i.e. Pampa River can discharge 23404 mld/ day as its run off. As per the Exhibit submitted by the applicant 74.86 mld of water is withdrawn for various schemes in the upstream and downstream to the proposed source. Even after withdrawing 40 mld from Pampa in addition to the present 74.86 mld there is sufficient water in Pampa i.e.  $(23404 - (74.86 + 40)) = 23289.14$  mld of water) i.e. 269.55 m<sup>3</sup>/s flow in Pampa River, hence, it is clearly evident that by withdrawing 40 mld of Water for this scheme the bio-diversity of Holy River Pampa will not be affected.

**16. Para 19:** It is humbly submitted that the detailed Project Report o KWA schemes shall contain the source adequacy certificate of that particular scheme. But the source adequacy I finalized after considering all the existing

and ongoing projects in the upstream and downstream of the source proposed by taking the relevant river gauge details.

**17. Para 20, 21 & 22:** It is submitted that Kerala Water Authority usually prepares the project after detailed investigation of the source and scheme area. The impact of the withdrawal of water and the schemes in the up streams and down streams of the source are taken into account before fixing the source of a new scheme. The average flow of Pamba River is 270.88 m<sup>3</sup> /s for the past 10 years i.e. Pamba River can discharge 23404 mld/ day as its run off. As per the Exhibit submitted by the applicant 74.86 mld of water is withdrawn for various schemes in the upstream and downstream to the proposed source. Even after withdrawing 40 mld from Pamba in addition to the present 74.86 mld there is sufficient water in Pamba i.e.  $(23404 - (74.86 + 40)) = 23289.14$  mld of water) i.e. 269.55 m<sup>3</sup>/s flow in Pamba River, hence, it is clearly evident that by withdrawing 40 mld of Water for this scheme the bio-diversity of Holy River Pamba will not be affected.

**18. Para 23 to 25:(i)** It is humbly submitted that, EIA notification, 2006 has mandated prior environmental clearance for various projects or activities listed as per schedule I of the notification clearly mentioning the category and its threshold limit for each activity. It is submitted that Water Supply Project is not an enlisted project as per the notification and hence an EIA study and prior environmental clearance is not required in this case. It is submitted further that earth's crust contains about 7.5% of Aluminium and 3.4 % of calcium. Natural soil contains approximately 45 to 50% of minerals, 2 to 50% of water, 2 to 50% of gases, 1 to 5% of organic matter and less than 1% of microorganisms. All the above components of soil are essential for the natural growth of plants. Aluminum is present in natural soil in various forms, which is never reported to be detrimental to plant growth or create any health problem. The sludge produced after purifying the river water for drinking water purpose contains mainly silt and mud separated from the river water. It contains traces of Aluminum, calcium etc. in different chemical forms which

are not at all detrimental to plant growth. As per CPHEEO standards the acceptable limit of aluminum in drinking water is 0.03mg/1 and that of calcium is 75 mg/1. (Annexure R8). If this much of Aluminum and calcium is permitted in drinking water, traces of the above metals contained in the sludge separated from the river water is not at all detrimental to plant life, if discharged to the natural drains. But in this case, KWA is planning not to discharge the wash water to natural drainage, in order to save wash water by recycling. The sludge produced from the recycling process is proposed to be disposed by any CPHEEO approved methods of sludge disposal as per the clause. 7.7.1 (Annexure R2). The methods include sludge thickening and sludge dewatering either by using drying bed, sludge lagoon, filter press or centrifuge. The dried sludge can be used for land fill, brick and tile manufacturing etc.

(ii) BOD is a term representing the organic pollution of water and is the amount of oxygen required for decomposition of biodegradable organic matter under aerobic conditions. Leaves and branches of trees, organic matter reaching the river during rain from nearby area, mainly contribute to BOD of river water if intentional external pollution by depositing organic waste is not there. When biological waste is discharged into a flowing water body it starts decaying and the BOD increases. BOD of a water body is closely related to a term **“self-purification of natural streams”**. The **“Dissolved Oxygen Content”** of a flowing water body which is inversely proportional to the BOD, starts decreasing to a certain “time and distance” and starts increasing at critical point. After a certain time and distance from the critical point, DO become stable and this is the indication of “No BOD”. The **Self-cleaning** capacity of a **river** refers to the process by which pollutants discharged into a **river** gets cleaned by natural process. Factors like the flow of the river and the presence of bacteria which decomposes pollutants into harmless substances contribute to the **self-cleaning** capacity of a **river**.

(iii) It is further submitted that since facts are as above, the average BOD of the whole stretch of river recorded at different times and different locations have no relevance on accessing the BOD of raw water proposed to be taken for this Water Supply Scheme. Actually, BOD will be eliminated by keeping the water in contact with atmospheric air. The first process in a water treatment plant is aeration and BOD will be considerably decreased in aeration process. Almost all the processes in a water treatment plant helps to reduce the BOD of raw water, if any, by keeping the water in contact with atmospheric oxygen and other oxidants. Back washing of filter bed is carried out using treated water. Chlorine is considered as a powerful oxidizing agent. During the process of recycling also the wash water come in contact with abundant atmospheric air while flowing. At the end of the above process, the BOD of the sludge will be practically zero. No such issue as alleged by the petitioner is reported in any of the TPs operated by KWA.

(iv) It is further submitted that if the BOD is high, the oxygen content of water will be consumed for degradation of the organic materials, and this in turn will be detrimental to the life of water organisms. On the other hand, the organic materials present in waste when dumped to land will be decomposed by the action of microorganisms present in the soil and stabilized to inorganic salts which will in turn be consumed by the plants. In such case, land filling is not harmful but beneficial to the environment if applied in controlled quantities. As per schedule VI of Environmental (Protection) Rules, 1986, max BOD of the effluent that can be discharged into surface water is 30 mg/l whereas to irrigation land is 100 mg/l. It may be pointed out at this juncture that the land owner is going to establish a rubber related factory in the land that will generate high toxic and hazardous waste harmful to the environment. So, the apprehension of the applicant who is having suspicious relations with the land owner on the safety of environment is fully dishonest.

(v) It is submitted that as per the National Drinking Water Policy drinking water is given top priority. Hence, this project has to be executed

since the drinking water needs of the inhabitants of seven panchayaths. KWA proposes a proper wash water recycling system as per CPHEEO manual. On the other hand, the applicant states that discharging the waste water to the river is safer than proper wash water recycling system that ensures zero waste and saving of precious water and environment.

(vi) It is submitted that there will not be any threat to the environment due to the construction of water treatment plant in the proposed site. The waste water generated from the water treatment plant will be properly managed by providing back was water recycling system and proper sludge management techniques. There will not be any accumulation of waste from the plant.

**Grounds:**

I. The 4<sup>th</sup> respondent submits the following statement of facts in respect of the grounds raised by the applicant in the present application:

A. It is submitted that the proposed Water Supply Scheme has been planned and designed for implementation after conducting detailed survey by a team of engineers who are experts in the field. Water treatment plant of 40 mld capacity proposed in survey No.53/1 include all modern techniques including waste water treatment with reuse and sludge handling and disposal facilities. No. Revenue/Public land is identified near to the location of source suitable for the construction of WTP. Moreover, any revenue land having the above extent is not seen identified anywhere in Koippuram village. While identifying the land for WTP, keen attention has been taken for avoiding eviction of habitations and livelihood of common people. The proposed extent of 350 cents is a part of a block of 1150 cents of land in the ownership of the petitioner land others.

B. Administrative Sanction has been issued for implementing Phase I of this Water Supply Scheme for an amount of Rs.42.35 Lakhs vide AS No.Go(Rt) No.269/2017/WRD dated 30.03.2017. Also Rs.85 crore is

earmarked in the budget speech of 2017-18 of Kerala State for phase II of the scheme.

- C. Govt. Order for acquisition of this land has been issued on 6.7.2017 by Government of Kerala.
- D. District Collector, Pathanamthitta has issued notification under sub section (i) of section 4 of land acquisition Act 2013 as per notification No.C2.141757/17 dated 28.7.2018.
- E. A company named "AMERICAN ENGINEERING CONSULTANCY SERVICES" represented by its president Smt.Ammi Kurien has filed W.P(c) No.5149/2018 before the Hon'ble High Court of Kerala with respondents as 1. District Collector, Pathanamthitta 2. Managing Director, Kerala Water Authority and 3. Secretary, Water Resources Department, Govt. of Kerala against acquisition of 350 cents of land in Survey No.53/1 of Koippuram Village.
- F. The above Writ Petition has been disposed by the Hon'ble Court with a direction to the Managing Director, Kerala Water Authority to hear the petitioner and pass appropriate orders on her representation within a period of one month from the date of receipt of judgment. The court direction has been complied by the respondent by passing order dated 23.2.2019. It has been decided to go ahead with acquisition of the land in survey No.53/1 of Koippuram village, since the applicant or the applicant company has no title or interest over the property and the alternative lands suggested by the applicant are not suitable for the construction of treatment plant for several reasons.
- G. Two companies named "AMERICAN ENGINEERING PVT. LTD" represented by SRI Jose Pannikkottu and "AMERICAN ENGINEERING CONSULTANCY SERVICES" represented by its president Smt.Ammi Kurien have filed this writ petition against the order dated 23.2.2019 passed by the Managing Director, Kerala Water Authority with regard to compliance of court order.

H. Sri. Jose Pannikkottu, the land owner has again approached the same court in the name of American Engineering Private Ltd. With the same contention as that of the earlier WP (C) 5149 of 2018 i.e. to block the land acquisition process.

I. Most of the plea and statement in this petition is same as that of the earlier petitions filed by the land owner. The demand for an EIA was clearly ruled out in the previous case. EIA notification, 2006 has mandated prior environmental clearance for various projects or activities listed as per Schedule I of the notification clearly mentioning the category and its threshold limit for each activity. Water Supply Project is not an enlisted project as per the notification and hence an EIA study and prior environmental clearance is not required in this case.

It is also respectfully submitted that any question of law based on the constitutional context has been raised by the applicant. What have been contended in the application is mere speculations without any scientific backing and legal sanctity. Not even a single scrap of paper has been produced by the petitioner which will go to show that erecting a water treatment plant will cause any harm to the ecology or make the environment polluted. The very contention of the petitioner that the sludge forms out of filtering water causes environmental pollution is only a misconception. The main sediments consequent to the water treatment is the mud which mans earth, upon which the human race is sprouted. The process of water treatment never emanates or gushes any sludge, filth or squalor.

II. (i) It is submitted that this application is filed with the ulterior motive to clog and hamper a welfare scheme undertaken by the respondent Authority. The applicant is absolutely not bothered about making available drinking water to the inhabitants of seven units of the local bodies. The applicant is not concerned about the plight of the common man who lives in the lowest strata of this society, in the hills, in savannas and the canopy without proper shelter,

food cloths and drinking water. Their livelihood is a matter of mere illusory concept. The vocalize for having drinking water at least once in a while. Nevertheless, the applicant is unmindful of the basic needs of such Poor people who live in slums, palm sheds, hamlets and huts. Their basic rights and need are shambled with the selfish outlook and attitude of the petitioner. Therefore, the applicant is not entitled to get any of the reliefs sought for in the application. The application is devoid of merit and is liable to be dismissed.

(ii) It is further submitted that in the project area shows that the wet lands of Pamba are facing a change in term of function. An example is the Varalchal wet land in Koippuram Panchayath of Pathanamthitta District. On either bank of Varalchal lived thousands of households that depended on it for sustenance and water security. With commercial exploitation by way of private land holdings and illegal sand mining to meet the civil construction industry demands and intense building activities, the stream that connected wet lands to the river begin to diminish, eventually leading to the degradation of wet lands like Varalchal. It is very strange to see that the applicant does not bother about this exploitation that was happened in this locality. Moreover, the exhibits attached by the applicant i.e. Annexure A9, A10 are given to Sri Ammini Kurien, the petitioner of the WP(C) 5149/2018 under Right to Information Act. This shows the suspicious relation of petitioner with the land owner.

(iii) It is submitted that there are three more writ petitions with same arguments filed before the Hon'ble High Court of Kerala WP(C) 5149/2018 filed by Sri.Ammini Kurien, WP(C)9526/2019 filed by M/s. American Engineering Pvt Ltd. Based on the statements of facts submitted by KWA both of them were ruled out. There was one another petition filed by the same petitioner before the Hon'ble High Court of Kerala WP(C) 13408/2019.

(iv) It is known that the applicant is a teacher. It is a very pathetic situation that a teacher who should have been a model is acting on the behest

of some land lords who are trying to deny the right of lakhs of people to access safe drinking water.

(v) Safe drinking water is now becoming the most scarce and valuable commodity in the State. Acute scarcity of safe drinking water is felt in Puramattom, Kalloppa, Ezhumattor, Kunnamthanam, Eraviperoor, Koippuram and Thttappuzhasserri Panchayats. Over 1.36 lakhs people are residing in these panchayats. It is the constitutional right of every citizen to get safe drinking water. Kerala Water Authority is the one and only instrumentally of State Government to safeguard the right of the citizens by implementing proper **water supply projects**.

(6) Public interest and the welfare of common men are the paramount concern of every Government and its instrumentalities. Ensuring and providing pure drinking water is the **sine quo non** condition for the very existence of human race on earth. As such, this has become an inalienable right of every human being on earth. The Universal Declaration of Human Rights also provides it as a basic human right of an individual. This has accepted globally as a fundamental right of every citizen in the constitutional context also.

Therefore, it is respectfully prayed that the Hon'ble Tribunal may be pleased to dismiss the petition with cost to these respondents.

Dated at Chennai on this the      day of July, 2021.



(E.K.Kumaresan)  
Counsel for R1, R4 & R5  
Standing Counsel for  
State Government of Kerala  
NGT(SZ) Chennai Bench

**O.A. No. 24 of 2021 (SZ)**

BETWEEN

O.A.Ninan,  
S/o. O.N. Abraham, Manager,  
Grace Mount Residential School,  
Kumbanadu P.O., Thiruvalla,  
Pathanamthitta, Kerala-689 547  
...Applicant

AND

The State of Kerala,  
Rep. by its Secretary,  
Directorate of Environment and  
Climate Change,  
4th Floor, KSRTC Bus Terminal,  
Thampanoor, Thiruvananthapuram  
& 4 Others  
...Respondents

**REPLY STATEMENT FILED BY**  
**THE 4th RESPONDENT, KERALA**  
**WATER AUTHORITY.**

**M/s. E.K.KUMARESAN**

Standing counsel for Kerala (SZ)  
Counsel for R1, R4 & R5



# KERALA WATER AUTHORITY

Office of the Executive Engineer  
Project Division, Adoor.  
Phone: - 04734-214839, mob. 8281597988  
E-mail- pdadoor@gmail.com

No. PDA/DB-151 /2019

Date: 09/04/2021

From

Executive Engineer

To

The Advocate General,  
Office of the Advocate General,  
Ernakulam,  
Kochi 682 03.  
Pathanamthitta.

Sir,

Sub: - GREENBOOK- CWSS to Paramattam, Kalloppara, Eerhumattor,  
Kunnamthanam, Eraviperoor, Koippuram & Thottappuzhassery  
panchayaths in Pathanamthitta district -Details submitting for  
O A 24/2021 filed Sri O A Nainan before Green Tribunal- reg.

Ref: - 1. Letter No.C2 141757/17 dtd 22/03/2021 of the District  
Collector, Pathanamthitta.

I am submitting herewith the para wise statement of facts for the  
petition WP No.24/2021 filed by Sri. O A Nainan before The National Green  
Tribunal .

Your's faithfully,

  
Executive Engineer

ACC: 1. Statement of facts.

**Before the National Green Tribunal Court WP No.24/2021**

*Between*

**Sri O A Ninan**

:

**Petitioner**

*And*

**State of Kerala &  
others**

:

**Respondents**

**Statement of Facts**

Parawise Statement of facts submitted by R4 in the aforesaid Writ Petition.

Kerala water Authority (for short the Authority) is a statutory body established under section 3 of the Kerala water Supply and Sewerage Act, 1986 (Act 14 of 1986) (for short the Act) This enactment is also aimed to provide for the development and regulation of water supply and waste water collection and disposal in the State of Kerala and for matters connected there with. The Authority has following wide and unique powers and functions, provided under section 14 and 15 of the Act respectively, namely.-

Functions of the Authority.--The Authority shall perform all or any of the following functions, namely:--

(i) preparation, execution, promotion, operation, maintenance and financing of the

schemes for the supply of water and for the disposal of waste water ;

(ii) rendering all necessary services in regard to water supply and collection and

disposal of waste water to the Government and on request to private the private

institutions or individuals :

(iii) Preparation of State plans for water supply and collection and disposal of waste water on the directions of the Government;

(iv) fixation and revision of tariffs, taxes and charges of water supply and maintenance service in the areas covered by the water supply and waste water systems of the Authority;

(v) establishment of state standards for water supply and waste water services ;

(vi) all functions, not stated herein which were being performed by the public Health Engineering Department of the Government before the commencement of this Act ;

(vii) assessment of the requirements for manpower and training in relation to water

supply and sewerage services in the State ;

(viii) carrying out applied research for the efficient discharge of the functions of the Authority;

(ix) making provision for the supply of wholesome water and efficient sewerage services to the people in the State ;

(x) taking such other measures as may be necessary to ensure water supply in times

of emergency ; and (xi) such other functions as may be entrusted to the Authority by the Government by notification in the Gazette

Powers of the Authority:-

(1) The Authority shall, subject to the provisions of this Act, have power to do

anything which may be necessary or expedient for carrying out its functions under this Act.

(2) without prejudice to the generality of the foregoing provisions, such power shall include the power-

(i) to obtain such periodic or specific information from any local body as it may deem necessary;

(ii) to prepare and carry out schemes for water supply and sewerage and to exercise all powers and perform all functions relating thereto : Provided that the power of

sanctioning schemes costing more than rupees one crore shall be exercised only with the previous approval of the Government ;

(iii) to lay down the schedule of fees for all services rendered by the Authority to the Government, local bodies, institutions or individuals, to fix or amend tariffs and charges for water supply and sewerage services and collect all such fees and charges for these services as may be prescribed : Provided that any revision of tariffs and charges for water supply and sewerage services shall be made only with the previous approval of the Government ;

(iv) to enter into contract or agreement with any person, firm or institution as the

Authority may deem necessary, for performing its functions under this Act : Provided that any contract or agreement involving more than rupees one crore shall be entered into by the Authority only with the previous approval of the Government ;

(v) to adopt its on budget annually subject to the previous approval of the Government;

(vi) to abstract water for drinking purpose from any natural source and with the

permission of the Government for other purposes and dispose of waste water ;

(vii) to borrow money, issue debentures, to obtain subventions, capital contributions, loans and grants, in incur expenditure and manage its own funds ;

(viii) to grant loans and advances to such persons or authorities as the Authority may deem necessary for performing the functions under this Act;

(ix) to acquire, possess and hold lands and other property and to carry any water or

sewerage works through, across, over or under any highway, road, street or place and, after reasonable notice in writing to the owner or occupier, into, through, over or under any building or land ;

(x) to accept gifts in kind and in cash with the previous approval of the Government.

### **Facts in Brief**

#### **Para1**

The Kerala Water Authority has proposed to implement a Water Supply Scheme for the general improvement of public health and social living status of people of Seven Grama Panchayaths viz. Puramattom, Kallupara, Ezhumattoor, Kunnamthanam, Eraviperoor, Koipuram and Thottappuzhassery. These are seven adjacent Grama panchayats situated in the hilly villages of Pathanamthitta District and the benefitted population of the scheme is **135928** as per the 2011 censuses. Most of the people belong to socially and economically backward classes. As done in the case of every new proposal of Water Supply Schemes in Kerala Water Authority, detailed survey and

investigation have been carried out for planning a viable proposal of new WSS covering the entire area of the above panchayaths. After conducting detailed survey, a comprehensive scheme is designed for implementation. Design of the scheme has been prepared and approved by a team of engineers who are experts in the field. The source proposed for the scheme is Pampa River. A water treatment plant of 40 mld capacity integrating all modern techniques including waste water treatment for reuse sludge handling & disposal facilities is proposed in survey No 53/1 (350cent)& 52/12 (8 cent) near Muttaman junction in Koipuram village. After fixing the suitable location/position for the WTP according to the topography, locations of other components viz Intake well, Storage/service reservoirs in the seven panchayaths were fixed. The land, bearing survey No. 53/1 (350cents)& 52/12 (8 cent) is identified as the most suitable site for the construction of WTP. This land is having a topography to construct the components of WTP, soil is hard so as to avoid expensive piling works for foundation, site is above the maximum flood level of 2018, and treated water can be distributed within a short distance to all the Grama Panchayats.

Administrative Sanction for Rs 42.35 crore has been accorded for phase I of the scheme after vetting the Detailed Project Report at various level office of KWA & Govt. of Kerala vide AS No. GO(Rt) No.269/2017/WRD dated 30.03.2017. Also Rs. 85 crore is earmarked in the budget speech of 2017-18 of Kerala State for phase II of the scheme(Annexure R1)

This petition is filed by Sri. O A Ninan. The core issue is related to the acquisition of land owned by Sri. Jose Pannikkottu Sri Jose Pannikkottu and his relatives have filed 3 numbers of cases one after

other in the Hon. High Court of Kerala against the proposal for acquisition of this land which is found by Kerala water Authority absolutely suitable for the construction of Water Treatment Plant of this proposed Water Supply Scheme. The petitioner Sri. O.A Ninan has also filed petition in the Hon. High Court with same versions as of the land owner. Details of cases are appended with this.

There will be no harm to the water body from which water is proposed to be extracted to cater the drinking water needs of the inhabitants of seven panchayaths. This source is selected by expert team of Kerala Water Authority after considering all aspects. No effluents or rejects from the proposed water treatment Plant will be discharged to the ground. Proper waste water recycling unit will be constructed along with the Water Treatment Plant as per CPHEEO norms.

### **Para2 &3**

It is clear from the exhibits submitted (Annexure A2) by the petitioner that the 2<sup>nd</sup> and 3<sup>rd</sup> respondents of WP(c) No. 13408/2019 has complied with the judgment of Hon'ble High Court of Kerala. What has been contended in the Writ Petition is mere speculations without any scientific backing and legal sanctity. Not even a single scrap of paper has been produced by the petitioner which will go to show that erecting a water treatment plant will cause any harm to the ecology or make the environment polluted. The very contention of the petitioner that the sludge forms out of filtering water causes environmental pollution is only a misconception. The main sediments consequent to the water treatment is the mud which means earth, upon which the human race is sprouted. The process of water treatment never emanates or gushes any sludge, filth or squalor.

#### **Para4&5**

The respondents have never stated that they have stopped the land acquisition proceedings and the project itself and the petitioner has not submitted any proof for his version.

#### **Para 6&7**

The project has never been stopped and the land acquisition proceedings were continued as per law. The necessity of conducting an Environmental Impact Assessment (EIA) as pointed out by the petitioner is not required for water supply schemes, since water supply project is not an enlisted project as per Notification dated 14.9.2006 issued by Ministry of Environment & Forests.

#### **Para 7**

Kerala Water Authority has no plan to discharge the wash water generated from the TP to the nearby land or water body. Properly designed wash water recycling system as per CPHEEO norms will be adopted at the time of construction. Wash water recycling system will be a component of the treatment plant along with various other components of the plant. Design of wash water recycling system and effective management of filter backwash water and sludge will be done during construction and operation of the plant.

In a Water Treatment Plant, water collected from the surface water source such as river, Lake etc. is treated by various processes so as to get the water satisfying the Central Public Health and Environmental Engineering Organization (CPHEEO) accepted standards of drinking water.

The purpose of a water treatment plant is to remove the impurities (foreign materials present in natural water) contained in the water collected from the source and to convert it to potable water . In Kerala the major source of water for a water supply scheme is surface water ie. a river or a lake. The impurities present in such waters are clay/ minute sand particles which makes the water turbid. But these impurities are not toxic. Hence the aim of water treatment is to remove these tiny clay/ sand particles. Any micro- organisms such as bacteria present in water will also be removed by disinfection by chlorination. These tiny particles of clay can be removed by keeping the water quiet for some time (sedimentation) as we do in our houses. But very fine particles will take more time to settle down and the impurities in colloidal form will not settle. Hence in water treatment plants some compounds like (Alum and Lime) Aluminum Sulphate will be added to raw water to enhance the settling of colloidal and very fine particles by forming flocs so that the time for settling will be reduced drastically also lime will be added to adjust the PH to potable standard. The quantity of Alum and Lime to be added depends on the level of turbidity. During summer months the turbidity of raw water will be very low so that the use of Alum and Lime will be minimum. Filtration through a filter bed (layer of sand or any other type of inert material) will further remove very fine particles and tiny flocs that are not removed by settling. So, the residue from a water treatment plant will contain the nontoxic clay/sand particle. In a water treatment plant the residues are generated from 2 locations one is from the sedimentation basin and the other is from the filter bed during the cleaning of the filter bed which is known as back washing of filter beds. The residue from the

sedimentation basin (sludge) is small in quantity and is stable due to the absence of organic matter. So the sludge is allowed to remain in the sedimentation basin for some time and is removed on monthly or bimonthly basis depending upon the quantity of sludge accumulated in the sedimentation chamber.

Proper sludge management system for disposal of sludge is planned with the construction of WTP, for the safe disposal/reuse of sludge generated from the treatment plant as per clause. 7.7.1 of CPHEEO manual(Annexure R2). The system includes Sludge thickening and sludge dewatering either by using drying bed, sludge lagoon, filter press, vacuum filtration or centrifuge. The dried sludge can be used for land fill, brick and tile manufacturing etc. It is possible to reclaim the Alum content of the sludge if found necessary. It is humbly submitted that KWA is operating more than 200Nos of WTPs in all over Kerala with Maximum capacity of 174 mld at Kozhikkode. No adverse effect on environment either surface water or ground water is reported so far due to the operation and maintenance of these units, anywhere from Kerala.

#### **Para8**

Kerala Water Authority prepares the detailed project report based on the run off data of the river sources which is available now through website.

The source of the scheme is Pampa river which originates at Pulichimala hills in Peerumedu Plateau at an attitude of 1650 m and is having a catchment area of about 2235 sqkm . It is flowing 176 km long, the river is charged by about 288 rivulets and streams. Kakkiyar, Kallar, Kakkad river, Azhutha etc are its main tributaries.

Also there are many hydroelectric project in the upstream of Pampa river .The Sabarigiri hydroelectric project has three dams, Kakki, Anathodu and Pampa. Gavi ,Kochupampa are other dams in the upstream side .The tail water of this hydroelectric projects is let in to Kakkad river which adds to the inflow of water to Pampa river.

Average discharge data of Pamba river for the last year in 64.987 cumecs. Last 10 years average flow is 270.88 cumecs.(Based India Water Resources Irrigation System data )

The studies conducted in connection with PAVLP (Pampa Achenkovil Vaippar Link Project) by National Water Development Agency in Pampa and Achenkovil reported that this river had 3127 million cubic meters of surplus water. Hence by withdrawing 40 mld of water for drinking purpose will not have any impingement and entrapment impacts in the holy river Pampa . There will not be any ecological imbalance by extracting 40 million litre of water daily as there is sufficient run off in the Pampa river every day during lean months also.

The pump sets proposed in the WTP site are of total capacity 610 HP and for intake well is of capacity 400 HP. Now a days water authority is using Green pumps which are specially developed with few rotating parts and hence the sound emitted from these pumps is less than 65 decibels – the WHO standard limit of noise pollution. The present location of WTP does not have any eviction of people and hence it will not cause any social impact to the people. The SIA (Social Impact assessment) study has carried out earlier and is attached

herewith for reference. The final report based on the SIA study is also done (attached as Annexure R3 ).

Also in the land proposed for WTP, there is an abandoned quarry. It is very clear that there will not be any adverse effect in the construction of WTP or working of WTP rather than the quarrying and mining activities.

The cost analysis of WTP location near the source and at the proposed site are done and the proposed site is found as ideal considering the distribution of treated water to 7 panchayaths , recurring cost of operation and maintenance, increased investment for the structural stability of the water holding Structures in the loose and slushy soil(attached as Annexure R4) . Cost comparison for laying several kilometers of pipelines will not be taken , as KWA is a service delivery organization and drinking water is a primary need of the citizens of every nation. Also the location of service reservoirs will decide the length of pipelines to be laid not the location of WTP.

The general policy of the Water Authority is to make comprehensive water supply schemes, considering the production and operation cost of treated water .

By introducing Jala Jeevan Mission Programme the Government of India has decided to provide functional house hold tap connection to each and every house holds in Panchayath area by taking the state Govt, Grama Panchayath and beneficiaries as its stake holders.This can be materialized in these seven Panchayaths by providing 19105 functional house hold tap connections only after completing this project. The Government declared the deadline of completing the project of providing house connection is March 2024.

As an organization, KWA have to design the WTP schemes benefitting the inhabitants in an optimal manner with minimum initial and recurring expenditures. By making localized water supply schemes after constructing well cum pump houses and TP and treatment system for each Panchayath the operation and running cost will be increased to a great extend in addition to the initial investment required.

The cost of electricity charges and charges of operation and maintenance became a huge burden to this organization. So to avoid wastage of public money, Comprehensive schemes are designed now a days and making it functional. It is the policy matter of Government and this organization. The Cost of a water supply project depends on cost for pumping lines and machinery for treated water also. All these factors were considered by experienced engineers of Kerala Water Authority and prepared a suitable design for the present water supply scheme.

The location of water treatment plant depends on many factors out of which the hydraulic feasibility and economic considerations are of top most priority. The petitioner is trying to misguide the Tribunal by stating that the waste disposal system is the only criteria of deciding the location of the water treatment plants

## **SITING OF THE PROJECT**

### **Para4.**

The cost analysis of WTP location near the source and at the proposed site are done and the proposed site is found as ideal considering the distribution of treated water to 7 panchayaths , recurring cost of operation and maintenance, increased investment for the structural stability of the water holding Structures in the loose

and slushy soil(attached as Annexure R 4) . It is submitted that all components of a water supply scheme are important. The major and largest component is the treatment plant with large number of electrical, electromechanical components and sophisticated civil structures such as filter beds. But in a well cum pump house there will be raw water pump sets only. Moreover it is impossible to locate a well cum pump house at a distant location from the source as the raw water has to enter into the well freely and directly from the river. Usually the floor level of the pump house is placed above the maximum flood level. Being a single circular concrete structure it is easy to construct the intake well up to a level above the maximum flood level, as done in all the existing water supply projects. In the case of treatment plant since there are many civil structures such as aerator, clarifloculators, filter houses, chemical house, laboratory clear water reservoirs electrical rooms machineries etc. which are to be kept safe from flooding, it is practically not possible to place all components of a water treatment plant above Maximum flood level in an area susceptible to flooding. If we try for this, the cost of construction will be doubled. During the last high flood in August 2018 many treatment plants constructed in low laying areas were flooded with water. The renovation of an intake well after flooding is easy but the renovation of a water treatment plant is very difficult and time consuming as the filter media in the filter beds would completely chock out by the muddy flood water. It is not true that this location is in a residential area. and near to schools and hospitals.

Para5.

The location of the water treatment plant is fixed based on technical and hydraulic feasibility and economic viability proximity to source is only one factor as per CPHEEO manual. It is submitted that the proposed location of Treatment Plant is an ideal one. The aerial view of the schemes area is attached (Annexure R5) which shows the location of intake well, water treatment plant and service reservoirs. From the lay out sketch it can be seen that the proposed location for the WTP is located at the center part of the scheme area so that treated water can be easily conveyed to the service reservoirs at various locations. KWA has proposed the project after conducting detailed field study by the Project Planning and Design wing (PPD) of KWA. The site for the Treatment Plant is proposed as per the norms of plant siting in CPHEEO manual, clause 2.2.2 (Annexure R-6). The petitioner has attached copy of a hand book which is not mandatorily to be followed.

#### **Para6&7**

The location of the water treatment plant has been identified on the basis of technical, hydraulic and economic considerations. The water supply scheme is designed by a team of technical experts of Kerala water authority. KWA has proposed the project after conducting detailed field study by the Planning wing (PPD) of KWA. The site for the Treatment Plant is proposed as per the norms of plant siting in CPHEEO manual, clause 2.2.2 (Annexure R6).

The petitioner says that the best method of waste water disposal is to discharge the wash water directly to the river. But in fact discharging the residue from a water treatment plant to the river is not the best method of disposal but it is one of the many methods

of disposal. In modern treatment plants wash water will be recycled and proper sludge handling & disposal facilities are proposed along with water treatment plant. Kerala Water Authority designed this water supply scheme with proper water treatment plant for these panchayats. KWA proposes modern scientific wash water disposal system rather than discharging the wash water directly to the river. In such a situation, the contention of the petitioner (will not exist) is baseless. So it will no stand.

#### **Para8**

It is humbly submitted that Kerala water Authority has no plan to discharge the wash water from the treatment plant to the nearby land or natural drain. Rather the wash water will be recycled & reused, sludge will be disposed as per CPHEEO Norms. As per the record mentioned by the petitioner, the average BOD of River water is 4.50 mg/l. The point of sampling of water is not mentioned in the record. Point of sampling has a major importance with respect to BOD. BOD is a term representing the organic pollution of water and is the amount of oxygen required for decomposition of biodegradable organic matter under aerobic conditions. Leaves and branches of trees, organic matter reaching the river during rain from nearby area, mainly contribute to BOD of river water if intentional external pollution by depositing organic waste is not there. When biological waste is discharged into a flowing water body it starts decaying and the BOD increases. BOD of a water body is closely related to a term **“self-purification of natural streams”**. The **“Dissolved Oxygen Content”** of a flowing water body which is inversely proportional to the BOD, starts decreasing to a certain “time and distance” and starts increasing after critical point. After a certain time and distance from

the critical point, DO become stable and this is the indication of “No BOD”. The **self-cleaning** capacity of a **river** refers to the process by which pollutants discharged into a **river** gets cleaned by natural processes. Factors like the flow of the **river** and the presence of bacteria which decomposes pollutants into harmless substances contribute to the **self-cleaning** capacity of a **river**. Relevant portion of article regarding “self -cleaning of natural streams” is produced as Ext. R3(10).

Since facts are as above, the average BOD of the whole stretch of river recorded at different times and different locations have no relevance on accessing the BOD of raw water proposed to be taken for this Water Supply Scheme. The petitioner says that the BOD of sludge will become 450mg/l if the BOD of river water is 4.50 mg/l. Actually BOD will be eliminated by keeping the water in contact with atmospheric air. The first process in a water treatment plant is aeration and BOD will be considerably decreased in aeration process. Almost all processes in a water treatment plant helps to reduce the BOD of raw water, if any, by keeping the water in contact with atmospheric oxygen and other oxidants. Back washing of filter bed is carried out using chlorinated water. Chlorine is considered as a powerful oxidizing agent. During the process of recycling also the wash water come in contact with abundant atmospheric air while flowing. At the end of the above processes, the BOD of the sludge will be practically zero.

#### **Para9**

Copy of 3.14 of the feasibility report is not produced by the petitioner.

KWA has proposed a water treatment plant incorporating all modern techniques including waste water treatment with reuse and sludge handling & disposal facilities. No waste water will be discharged in to the nearby land as alleged by the petitioner. In such a situation chances of flooding the housing and agricultural areas is ruled out.

**Para10**

As KWA is not proposing to discharge wash water to nearby land, the consequence as alleged by the petitioner is ruled out. KWA has proposed to construct a modern water treatment plant incorporating all modern techniques including recycling of filter back wash water and sludge handling & disposal facilities. No waste will be discharged in to the nearby land as alleged by the petitioner. It is already stated that KWA has proposed a water treatment plant incorporating all modern techniques including waste water treatment with recycling and reuse and sludge handling & disposal facilities. No waste will be discharged in to the nearby land as alleged by the petitioner.

## Para11

The purpose of a water treatment plant is to remove the impurities (foreign materials present in natural water) contained in the water collected from the source and to convert it to portable water. In Kerala the major source of water for a water supply scheme is surface water i.e. a river or a lake. The impurities present in such waters are only clay/ minute sand particles which makes the water turbid. But these impurities are not toxic. Hence the aim of water treatment is to remove these tiny clay/ sand particles. Any micro-organisms such as bacteria present in water will also be removed by disinfection by chlorination. These tiny particles can be removed by keeping the water for some time (sedimentation) as we do in our houses. But very fine particles will take more time to settle down and the impurities in colloidal form will not settle. Hence in water treatment plants some compounds like (Alum and Lime) Aluminum Sulphate will be added to raw water to enhance the settling of colloidal and very fine particles by forming flocs so that the time for settling will be reduced drastically also lime will be added to adjust the PH to potable standard. The quantity of Alum and Lime to be added depends on the level of turbidity. During summer months the turbidity of raw water will be very low so that the use of Alum and Lime will be minimum. The usage of chemicals in a WTP clearly depends on turbidity of raw water and the optimum quantity is based on the daily test results of raw water in a WTP by Jar test. The commonly used coagulant for removal of turbidity of water is Alum (Aluminium Sulphate). Calcium hydroxide (Lime) is added to normalize the pH of water and also to aid flocculation. It is not compulsory to add Alum and lime in all seasons. The dosage is very often of the order of 10 - 15 mg/litre. The

major ingredient of the wash water will be the impurities (mainly mud and silt) separated from the river water and contain traces of chemicals which are not at all harmful to the environment. Filtration through a filter bed (layer of sand or any other type of inert material) will further remove very fine particles and tiny flocs that are not removed by settling. So, the residue from a water treatment plant will contain the nontoxic clay/sand particle. In a water treatment plant the residues are generated from 2 locations one is from the sedimentation basin and the other is from the filter bed during the cleaning of the filter bed which is known as back washing of filter beds. The residue from the sedimentation basin (sludge) is small in quantity and is stable due to the absence of organic matter. So the sludge is allowed to remain in the sedimentation basin for some time and is removed on monthly or bimonthly basis depending upon the quantity of sludge accumulated in the sedimentation chamber.

Proper sludge management system for disposal of sludge is planned with the construction of WTP, for the safe disposal/reuse of sludge generated from the treatment plant as per clause. 7.7.1 of CPHEEO manual (Annexure R2). The system includes Sludge thickening and sludge dewatering either by using drying bed, sludge lagoon, filter press, vacuum filtration or centrifuge. The dried sludge can be used for land fill, brick and tile manufacturing etc. It is possible to reclaim the Alum content of the sludge if found necessary. It is humbly submitted that KWA is operating more than 200Nos of WTPs in all over Kerala with Maximum capacity of 174 mld at Kozhikkode. No adverse effect on environment is reported so far due to the operation and maintenance of these units, anywhere from Kerala.

## Para12

The petitioner says that the best method of waste water disposal is to discharge the wash water directly to the river. But in fact discharging the residue from a water treatment plant is not the best method of disposal but it is one of the many methods of disposal. Discharging any kind of waste to water bodies is more harmful than land disposal. Hence in modern treatment plants wash water will be recycled and proper sludge handling & disposal facilities are proposed along with water treatment plant

## **Impact of drawal of water**

### **Para13,14,15,16,17,18**

The source of the scheme is Pampa river which originates at Pulichimala hills in Peerumedu Plateau at an attitude of 1650 m and is having a catchment area of about 2235 sqkm . It is flowing 176 km long ,the river is charged by about 288 rivulets and streams. Kakkiyar, Kallar, Kakkad river, Azhutha etc are its main tributaries.

Also there are many hydro electric project in the upstream of Pampa river .The Sabarigiri hydro electric project has three dams, Kakki, Anathodu and Pampa. Gavi ,Kochupampa are other dams in the upstream side .The tail water of this hydroelectric projects is let in to Kakkad river which adds to the inflow of water to Pampa river.

Average discharge data of pamba river for the last year in 64.987 cumecs. Last 10 years average flow is 270.88 cumecs.(Based India Water Resources Irrigation System data )

The studies conducted in connection with PAVLP (Pampa Achenkovil Vaippar Link Project) by National Water Development Agency in Pampa and Achenkovil reported that this river had 3127 million cubic meters of surplus water. Hence by withdrawing 40 mld of water for drinking purpose will not have any impingement and entrapment impacts in the holy river Pampa . There will not be any ecological imbalance by extracting 40 million litre of water daily as there is sufficient run off in the Pampa river every day during lean months also.

Kerala Water Authority usually prepares the project after detailed investigation of the source and scheme area. The impact of the withdrawal of water and the schemes in the up streams and down streams of the source are taken in account before fixing the source of a new scheme . The average flow of Pamba river is 270.88 m<sup>3</sup> /s for the past 10 years i.e. Pamba river can discharge 23404 mld/ day as its run off. As per the Exhibit submitted by the petitioner 74.86 mld of water is withdrawn for various schemes in the up stream and down stream to the proposed source. Even after withdrawing 40 mld from Pamba in addition to the present 74.86 mld there is sufficient water in Pamba i.e.  $(23404 - (74.86 + 40)) = 23289.14$  mld of water ) i.e. 269.55 m<sup>3</sup> / s flow in Pamba River , hence it is clearly evident that by withdrawing 40 mld of water for this scheme the bio- diversity of Holy river Pamba will not be affected.

**Para19.**

The Detailed Project Report of KWA schemes shall contain the source adequacy certificate of that particular scheme. But the source adequacy is finalized after considering all the existing and ongoing

projects in the upstream and downstream of the source proposed by taking the relevant river gauge details.

### **Para20,21 &22**

Kerala Water Authority usually prepares the project after detailed investigation of the source and scheme area. The impact of the withdrawal of water and the schemes in the up streams and down streams of the source are taken in to account before fixing the source of a new scheme . The average flow of Pamba river is 270.88 m<sup>3</sup> /s for the past 10 years i.e. Pamba river can discharge 23404 mld/ day as its run off. As per the Exhibit submitted by the petitioner 74.86 mld of water is withdrawn for various schemes in the up stream and down stream to the proposed source. Even after withdrawing 40 mld from Pamba in addition to the present 74.86 mld there is sufficient water in Pamba i.e.  $(23404 - (74.86 + 40)) = 23289.14$  mld of water ) i.e. 269.55 m<sup>3</sup> / s flow in Pamba River , hence it is clearly evident that by withdrawing 40 mld of water for this scheme the bio- diversity of Holy river Pamba will not be affected.

### **Para23 to 25**

EIA notification, 2006 has mandated prior environmental clearance for various projects or activities listed as per schedule I of the notification clearly mentioning the category and its threshold limit for each activity.--It is submitted that Water Supply Project is not an enlisted project as per the notification and hence an EIA study and prior environmental clearance is not required in this case.

Earth's crust contains about 7.5 % of Aluminium and 3.4% of calcium. Natural soil contains approximately 45 to 50 % of minerals,

2 to 50 % of water, 2 to 50% of gases, 1 to 5% of organic matter and less than 1% of micro organisms. All the above components of soil are essential for the natural growth of plants. Aluminum is present in natural soil in various forms, which is never reported to be detrimental to plant growth or create any health problem. The sludge produced after purifying the river water for drinking water purpose contains mainly silt and mud separated from the river water. It contains traces of Aluminum, calcium etc. in different chemical forms which are not at all detrimental to plant growth. As per CPHEEO standards the acceptable limit of aluminum in drinking water is 0.03mg/l and that of calcium is 75 mg/l. (Annexure R8) If this much of Aluminum and calcium is permitted in drinking water, traces of the above metals contained in the sludge separated from the river water is not at all detrimental to plant life, if discharged to the natural drains. But in this case KWA is planning not to discharge the wash water to natural drainage, in order to save wash water by recycling. The sludge produced from the recycling process is proposed to be disposed by any CPHEEO approved methods of sludge disposal as per the clause. 7.7.1 (Annexure R2) The methods include Sludge thickening and sludge dewatering either by using drying bed, sludge lagoon, filter press or centrifuge. The dried sludge can be used for land fill, brick and tile manufacturing etc.

BOD is a term representing the organic pollution of water and is the amount of oxygen required for decomposition of biodegradable organic matter under aerobic conditions. Leaves and branches of trees, organic matter reaching the river during rain from nearby area, mainly contribute to BOD of river water if intentional external

pollution by depositing organic waste is not there. When biological waste is discharged into a flowing water body it starts decaying and the BOD increases. BOD of a water body is closely related to a term “**self-purification of natural streams**”. The “**Dissolved Oxygen Content**” of a flowing water body which is inversely proportional to the BOD, starts decreasing to a certain “time and distance” and starts increasing after critical point. After a certain time and distance from the critical point, DO become stable and this is the indication of “No BOD”. The **self-cleaning** capacity of a **river** refers to the process by which pollutants discharged into a **river** gets cleaned by natural processes. Factors like the flow of the **river** and the presence of bacteria which decomposes pollutants into harmless substances contribute to the **self-cleaning** capacity of a **river**.

Since facts are as above, the average BOD of the whole stretch of river recorded at different times and different locations have no relevance on accessing the BOD of raw water proposed to be taken for this Water Supply Scheme. Actually BOD will be eliminated by keeping the water in contact with atmospheric air. The first process in a water treatment plant is aeration and BOD will be considerably decreased in aeration process. Almost all processes in a water treatment plant helps to reduce the BOD of raw water, if any, by keeping the water in contact with atmospheric oxygen and other oxidants. Back washing of filter bed is carried out using treated water. Chlorine is considered as a powerful oxidizing agent. During the process of recycling also the wash water come in contact with abundant atmospheric air while flowing. At the end of the above processes, the BOD of the sludge will be practically zero. No such

issue as alleged by the petitioner is reported in any of the TPs operated by KWA.

If the BOD is high, the oxygen content of water will be consumed for degradation of the organic materials, and this in turn will be detrimental to the life of water organisms. On the other hand, the organic materials present in waste when dumped to land will be decomposed by the action of microorganisms present in the soil and stabilized to inorganic salts which will in turn be consumed by the plants. In such case land filling is not harmful but beneficial to the environment if applied in controlled quantities. As per schedule VI of Environmental (Protection) Rules 1986, max BOD of the effluent that can be discharged into surface water is 30mg/l whereas to irrigation land is 100 mg/l. It may be pointed out at this juncture that the land owner is going to establish a rubber related factory in the land that will generate high toxic and hazardous waste harmful to the environment. So the apprehension of the petitioner who is having suspicious relations with the land owner on the safety of environment is fully dishonest.

As per the National Drinking water policy drinking water is given top priority. Hence this project has to be executed the drinking water needs of the inhabitants of seven Panchayaths.

KWA proposes a proper wash water recycling system as per CPHEEO manual. On the other hand, the petitioner says that discharging the waste water to the river is safer than proper wash water recycling system that ensures zero waste and saving of precious water and environment.

There will not be any threat to the environment due to the construction of water treatment plant in the proposed site. The waste water generated from the water treatment plant will be properly managed by providing back wash water recycling system and proper sludge management techniques. There will not be any accumulation of waste from the plant.

## GROUNDS

- A. The proposed Water Supply Scheme has been planned and designed for implementation after conducting detailed survey by a team of engineers who are experts in the field. Water treatment plant of 40 mld capacity proposed in survey No 53/1 include all modern techniques including waste water treatment with reuse and sludge handling & disposal facilities. No Revenue/Public land is identified near to the location of source suitable for the construction of WTP. Moreover any revenue land having the above extent is not seen identified anywhere in Koipuram village. While identifying the land for WTP, keen attention has been taken for avoiding eviction of habitations and livelihood of common people. The proposed extent of 350 cents is a part of a block of 1150 cents of land in the ownership of the petitioner and others.
- B. Administrative Sanction has been issued for implementing Phase I of this Water Supply Scheme for an amount of Rs 42.35 Lakhs vide AS No. Go(Rt) No.269/2017/WRD dated 30.03.2017. Also Rs. 85 crore is earmarked in the budget speech of 2017-18 of Kerala State for phase II of the scheme.
- C. Govt. Order for acquisition of this land has been issued on 6.7.2017 by Government of Kerala.
- D. District Collector, Pathanamthitta has issued notification under sub section (i) of section 4 of land acquisition act 2013 as per notification No. C2. 141757/17 dated 28.7.2018.
- E. A company named "AMERICAN ENGINEERING CONSULTANCY SERVICES" represented by its president Smt. Ammini Kurien has filed WP© No. 5149/2018 before the Hon. High Court of Kerala with

respondents as 1. District Collector, Pathanamthitta 2. Managing Director, Kerala Water Authority and 3. Secretary, Water Resources Department, Govt. of Kerala against acquisition of 350 cents of land in Survey No. 53/1 of Koippuram Village.

- F. The above writ petition has been disposed by the Hon. Court with a direction to the Managing Director, Kerala Water Authority to hear the petitioner and pass appropriate orders on her representation within a period of one month from the date of receipt of judgement. The court direction has been complied by the respondent by passing order dated 23.2.2019. It has been decided to go ahead with acquisition of the land in survey No. 53/1 of Koippuram village, since the petitioner or the petitioner company have no title or interest over the property and the alternative lands suggested by the petitioner are not suitable for the construction of treatment plant for several reasons.
- G. Two Companies named "AMERICAN ENGINEERING PVT. LTD" represented by Sri Jose Pannikkott and "AMERICAN ENGINEERING CONSULTANCY SERVICES" represented by its president Smt. Ammini Kurien have filed this writ petition against the order dated 23.2.2019 passed by the Managing Director, Kerala Water Authority with regard to compliance of court order.
- H. Sri. Jose Pannikkottu, the land owner has again approached the same court in the name of American Engineering Private Ltd. with the same contention as that of the earlier WP (C) 5149 of 2018 i.e. to block the land acquisition process.
- I. Most of the plea and statements in this petition is same as that of the earlier petitions filed by the land owner. The demand for an EIA was clearly ruled out in the previous case. EIA notification, 2006 has

mandated prior environmental clearance for various projects or activities listed as per schedule I of the notification clearly mentioning the category and its threshold limit for each activity. Water Supply Project is not an enlisted project as per the notification and hence an EIA study and prior environmental clearance is not required in this case.

It is also respectfully submitted that any question of law based on the constitutional context has been raised by the petitioner. What has been contended in the Petition is mere speculations without any scientific backing and legal sanctity. Not even a single scrap of paper has been produced by the petitioner which will go to show that erecting a water treatment plant will cause any harm to the ecology or make the environment polluted. The very contention of the petitioner that the sludge forms out of filtering water causes environmental pollution is only a misconception. The main sediments consequent to the water treatment is the mud which means earth, upon which the human race is sprouted. The process of water treatment never emanates or gushes any sludge, filth or squalor.

The petition is filed with an ulterior motive to clog and hamper a welfare scheme undertaken by the respondent Authority. The petitioner is absolutely not bothered about making available drinking water to the inhabitants of seven units of the local bodies. The petitioner is not concerned about the plight of the common man who lives in the lowest strata of the society, in the hills, in savannas and the canopy without proper shelter, food cloths and drinking water. Their livelihood is a matter of mere illusory concept. They vocalize for having drinking water at least once in awhile. Nevertheless, the petitioner is unmindful of the basic needs of such

poor people who live in slums, palm sheds, hamlets and huts. Their basic rights and need are shambled with the selfish outlook and attitude of the petitioner. Therefore, the petitioner is not entitled to get any of the reliefs sought for in the petition. The petition is devoid of merit and is liable to be dismissed.

The studies in the project area shows that the wet lands of Pamba are facing a change in term of function. An example is the Varalchal wet land in Koippuram Panchayath of Pathanamthitta district. On either .bank of Varalchal lived thousands of households that depended on it for sustenance and water security. With commercial exploitation by way of private land holdings and illegal sand mining to meet the civil construction industry demands and intense building activities, the stream that connected wet lands to the river begin to diminish, eventually leading to the degradation of wet lands like Varalchal. It is very strange to see that the petitioner does not bother about this exploitation that was happened in this locality

More over the exhibits attached by the petitioner ie Anexure A9, A10 are given to Sri Ammini Kurien the petitioner of the WP(C) 5149/2018 under Right to Information Act . This shows the suspicious relation of petitioner with the land owner .

There are three more writ petitions with same arguments filed before the Hon'ble High Court of Kerala WP(C) 5149/2018 filed by Sri . Ammini Kurien, WP(C)9526/2019 filed by M/S American Engineering Pvt LTD Based on the statements of facts submitted by KWA both of them were ruled out. There was one another petition filed by the same petitioner before the before the Hon'ble High Court of Kerala WP(C) 13408/2019

It is known that the petitioner is a teacher. It is a very pathetic situation that a teacher who should have been a model is acting on the behest of some land lords who are trying to deny the right of lakhs of people to access safe drinking water.

Safe drinking water is now becoming the most scarce and valuable commodity in the State. Acute scarcity of safe drinking water is felt in Puramattom, Kallooppara, Ezhumattoor, Kunnamthanam, Eraviperoor, Koippuram and Thottappuzhasseri panchayats. Over 1.36 lakhs people are residing in these panchayaths. It is the constitutional right of every citizen to get safe drinking water. Kerala Water Authority is the one and only instrumentally of State Government to safeguard the right of the citizens by implementing proper **water supply projects**.

Public interest and the welfare of common men are the paramount concern of every Government and its instrumentalities. Ensuring and providing pure drinking water is the **sine quo non** condition for the very existence of human race on earth. As such this has become an inalienable right of every human being on earth. The Universal Declaration of Human Rights also provides it as a basic human right of an individual. This has accepted globally as a fundamental right of every citizen in the constitutional context also.

Therefore it is respectfully prayed that the Hon'ble Tribunal may be pleased to dismiss the petition with cost to these respondents.

**Executive**

**Engineer.**