

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI
ORIGINAL APPLICATION No. 154 of 2021 (SZ)**

IN THE MATTER OF:

A. Balasubramanian

Applicant

Versus

Union of India & Ors.

Respondent(s)

**REPORT OF THE JOINT COMMITTEE CONSTITUTED IN THE O.A.
NO. 154 OF 2021 IN THE MATTER OF A. BALASUBRAMANIAN
VERSUS UNION OF INDIA & OTHERS BEFORE THE HON'BLE
NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE, CHENNAI.**

Place: Chennai

Date:26/11/2021

Report of the Joint Committee constituted in the O.A. No. 154 of 2021(SZ) in the matter of A. Balasubramanian Vs Union of India & Ors. before the Hon'ble National Green Tribunal, (SZ), Chennai.

1. Introduction:

In order to ascertain the nature of allegations referred therein the Original Application (O.A.) regarding alleged illegal sand mining / violations committed by the Public Works Department, WRD, Govt. of Tamil Nadu and the project authority (4th and 8th Respondents) at Survey Nos. 8 and 9 of Chinna Avudayar Koil Village, Pattukottai Taluk, Thanjavur District and also to ascertain the damages to environment, if any, the Hon'ble National Green Tribunal, Southern Zone, Chennai vide Order dated 30.07.2021 appointed a Joint Committee comprising the members of (1) Senior Officer from Ministry of Environment, Forest and Climate Change (MoEF&CC), Integrated Regional Office, Chennai, (2) a senior Officer from State Environment Impact Assessment Authority-Tamil Nadu (TN-SEIAA), (3) a senior Officer from Geology and Mining Department, Govt. of Tamil Nadu, and (4) a senior Officer from Tamil Nadu Pollution Control Board (TNPCB), with the direction to inspect the area in question and submit factual as well as action taken report, if there is any violation. In the above said Order, Hon'ble NGT appointed Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Chennai as nodal agency for co-ordination and for providing all necessary logistics for this purpose.

2. Constitution of the Joint Committee:

In compliance with the directions of the Hon'ble NGT, as a nodal agency Integrated Regional Office of MoEF&CC at Chennai initially vide O.M. No. EP/12.7/NGT(SZ)/021/2021/TN dated 22.09.2021 constituted a Joint Committee. In response to the letter dated 04.10.2021 of Tamil Nadu Pollution Control Board and in continuation to the Office Memorandum dated 22.09.2021 of the Integrated Regional Office of MoEF&CC at Chennai the Joint Committee constituted in the above matter has been revised and Er. R. Gunaseelan, District Environmental Engineer, TNPCB, Nagapattinam has been nominated as a member in place of Er. A. Alvin J. Anand, District Environmental Engineer, TNPCB, Thanjavur due to his unforeseen medical emergency. Accordingly, vide O.M. No. EP/12.7/NGT(SZ)/021/2021/TN dated 05.10.2021 the Joint Committee has been constituted comprising the following members based on the Officers deputed / nominated from the Authorities concerned:

- (i). Shri. P. Saravanan, Joint Director of Geology and Mining, Tiruchirappalli Region.
- (ii). Er. R. Gunaseelan, District Environmental Engineer, TNPCB, Nagapattinam.
- (iii). Er. C. Tholkappiyan, Assistant Environmental Engineer, State Level Environment Impact Assessment Authority – Tamil Nadu.
- (iv). Dr. M.T. Karuppiah, Scientist – E, Ministry of Environment, Forest and Climate Change, IRO, Chennai – (Nodal Officer for the Joint Committee).

3. Terms of reference (ToR) to the Joint Committee:

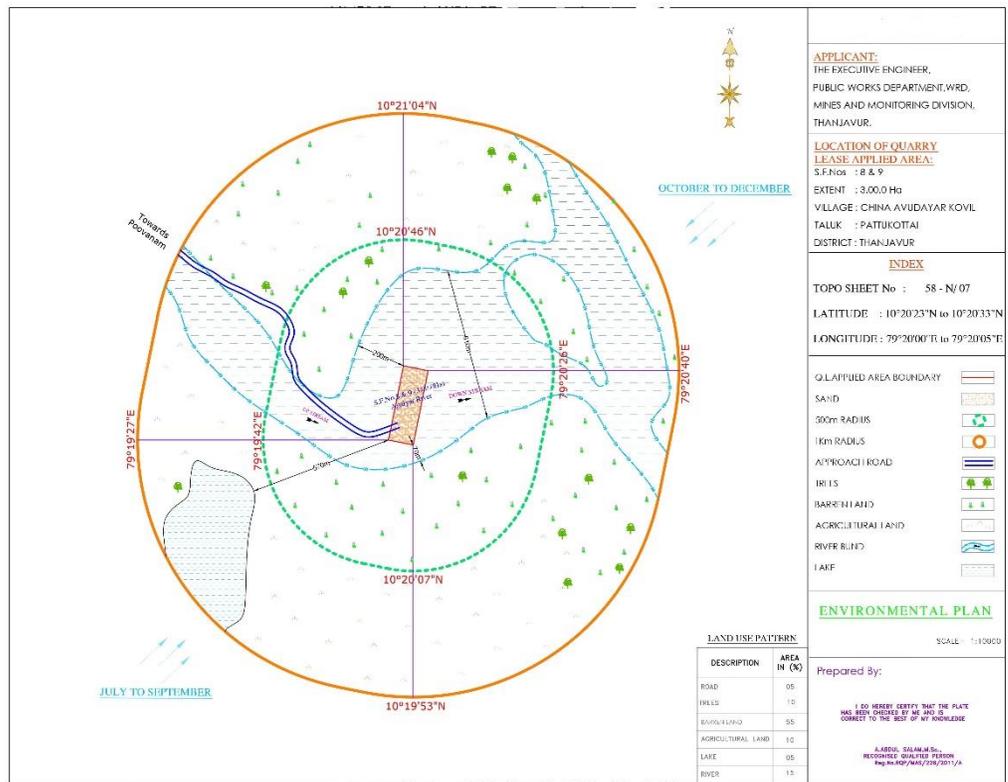
The Terms of the Reference (ToR) to the Joint Committee referred therein the Order dated 30.07.2021 of Hon'ble NGT in the above matter inter-alia include the following:

- (i). To ascertain whether the project proponent (8th respondent) has committed any violation of the conditions imposed in the Environmental Clearance for the project.
- (ii). Whether any excess mining has been done.
- (iii). Whether in-stream mining has been done against the guidelines issued by the MoEF&CC on sustainable sand mining policy.
- (iv). Any damage has been caused to the environment and river ecology.
- (v). Whether trees have been damaged in the process of mining.
- (vi). To assess the environmental compensation, if any, damage has been caused to the environment including expenses to be incurred for remediation and restoration, and
- (vii). The Committee is also directed to compare the original revenue records and other registers available in respect of these things available and also satellite images.

4. Background of the project:

The Public Works Department, WRD, Mining and Monitoring Division, Thanjavur vide proposal No. DIA/TN/MIN/16322/2018 dated 14/07/2018 had submitted their proposal for sand quarry over an extent of 3.0 ha. of Govt. land (Agniyar River) in S.F.Nos.8 & 9 of Chinna Avudayar Kovil Village, Pattukottai Taluk, Thanjavur District of Tamil Nadu, seeking environmental clearance (EC). The District Environmental Impact Assessment Authority (DEIAA)-Thanjavur vide letter No. DEIAA-Tnj-I/F.No.75/1(a)/EC.No.7/2017 dated 06.08.2018 accorded environmental clearance for the sand quarry located at SF. No. 8 & 9 having the extent of 3.0 ha. located at Chinna Avudayar Kovil Village, Pattukottai Taluk, Thanjavur District, subject to implementations of the conditions stipulated therein.

In accordance with the EC, the approved quantity of 54000 m³ of sand production was approved in the lease area of 3.0 Ha. for a period of 3 years in the Agniyar River from the date of execution of the mining permission granting authority. The District Collector, Thanjavur vide the proceedings R.C. No. 280/Mines/2018 dated 10/2/2020 has accorded permission to commence new Bullock Cart sand quarry. According to the EC and proceedings of the District Collector the depth of quarrying shall not exceed 1m from the sill level. The precise area communication was obtained vide R.C. No. 280/Mines/2018 dated 04/7/2018. Mining plan for the above proposal was approved vide letter No. 280/Mines/2018 dated 12/7/2018 of Office of the A.D, Geology and Mining, Thanjavur.



Location map of the sand mining quarry (Source: Approved Mining Plan)

As per EC project cost is Rs.77,85,000/-. Project Authority obtained Consent to Operate from the TNPCB vide proceedings dated 15/11/2018, which is valid till 31/03/2022. Reportedly, the sand mining quarry was commenced on 14/03/2020 and completed on 02/02/2021.

5. Meeting of the Joint Committee and site inspection:

Nodal agency vide letter dated 01.10.2021 requested the District Collector, Thanjavur to depute the Officer from the Revenue Authority to participate in the meeting and site inspection of the Joint Committee and also requested to furnish the details of compliance reports received, if any, from the project authority by the DEIAA-Thanjavur / District Collector and action initiated, if any, based on the public representations received on the above alleged sand mining project. Based on the instructions of the District Collector, Thanjavur, Officers from the Revenue

Authority, Pattukottai and Assistant Director of Geology and Mining, Thanjavur were attended the meeting and site inspection. However, the Joint Committee did not receive any reply / communication from the District Collector, Thanjavur regarding compliance reports received from project authority and action initiated, based on the public representations received, if any, on the above alleged sand mining project.

(ii). In compliance with the Order dated 30.7.2021 of Hon'ble NGT in the above matter and in continuation to the Joint Committee Constitution, meeting of the Joint Committee was held through online video conference on 04.10.2021. In the said meeting all the members of the Committee, Authorized Officers from PWD, Officers from District Revenue Authority were participated. As a nodal agency, the meeting was coordinated by the MoEF&CC, Integrated Regional Office, Chennai. In the said meeting, deliberated the issues and TOR to the Joint Committee and plan of actions required in order to ascertain the issues through scientific study. Accordingly, all the members unanimously decided to undertake scientific survey in order to ascertain the quantity of the sand mined-out, extent of the area mined out and depth of mining undertaken. In this regard, it was decided to find the RL values before and after the mining using levelling instruments. In the absence of levelling instruments with the Govt. Surveyors of the Pattukottai Revenue Division, it was decided to engage a qualified surveyor for this study. Accordingly, third party agency M/s Ashoka Enterprises, Kallakurichi was engaged for the above study using leveling instrument and the expenditure incurred for the said study was met by the PWD, WRD, Govt of Tamil Nadu based on the request of the Committee.

(iii). In continuation to the meeting of the Joint Committee, site inspection of the area under question was undertaken by the Joint Committee on 11.10.2021 in presence of the project authority, Officers from the revenue authority concerned, Assistant Director of Geology and Mining, Thanjavur and also the Applicant. List of participants in the inspection is placed as **Annexure-I**. As part of natural justice and as consented by all the members of the Committee an opportunity was given to the Applicant and the project authority i.e. Public Works Department, WRD, Govt. of Tamil Nadu to submit their views before the Committee. During the site inspection all the members of the Joint Committee were present and discussed the facts, issues and prayers in the above case and the Terms of the Reference (ToR) to the Joint Committee referred therein the Order dated 30.7.2021 of Hon'ble NGT.

5.(I). Submissions of project authority (Public Works Department, WRD, Govt. of Tamil Nadu):

On behalf of Public Works Department, WRD, Govt. of Tamil Nadu, as a project authority, Officers from the Public Works Department, WRD, Mining and Monitoring Division took part in the meeting and site inspection and made their written submissions in connection with the above alleged sand mining, which inter-alia include the following:

- (a). Operation of the sand mining quarry was commenced on 14/03/2020 and completed on 02/02/2021 within the approved lease area.
- (b). Around 1400 bullock cart located near Pattukottai and Peravurani and Orathanadu Taluks were identified and checked by the Revenue Department for online allocation of sand for the carts. An unique identity number was allotted for each bullock cart. Each bullock carts were fixed with Radio frequency identity and mapped with details of bullock carts such as owners name, address and their phone number with unique identity number.
- (c). The bullock carts were divided into different schedules and concerned Officer of Water Resource Department scheduled the list of bullock carts for sale of sand. SMS were being sent to the registered bullock cart owner's mobile number and scheduled bullock cart was only allowed to enter in to the quarry.
- (d). The scheduled bullock cart at the quarry were verified by the person deputed for the quarry under the supervision of Assistant Engineer, WRD.
- (e). Manual method was adopted for mining of sand, which were to be loaded to the bullock carts.
- (f). Quantity of sand i.e. height of the sand loaded in the carts were already measured and marked for each cart and cross verified while issuing permits and sent out from the quarry.
- (g). Digital payment such as point of sale (POS) machines were used for obtaining the amount from the cart owner's debit / credit card.
- (h). The total quantity of sand excavated is 53674 m³ against sanctioned quantity of 54,000 m³. As informed total revenue created by this quarry is Rs.93,53,464/- (including GST 5%). **However, PA not made available copies of the returns filed / royalty and other tax paid in this regard.**
- (i). Project authority denied the allegation regarding existence of eco-sensitive Mangrove Forest and Thamarankottai Reserve Forest within 10 km from the impugned sand mining quarry and requirement of clearance from the Standing Committee of NBWL.

- (j). Project authority denied the allegation raised by the applicant regarding destruction of trees on the project site under question and change in the course of direction of flow pattern of the river.
- (k). Further, it was also informed that there is an encroachment of government land near by the Agniyar River by private land owners and thus the litigation is initiated to continue possession and enjoyment of encroached land by the private parties.

Copy of the written submission received from project authority and the declaration regarding production achieved is placed as **Annexure-II**.

5.(II). Submissions of the local people / bullock cart owners.:

- (a). Despite there was no intimation to the public by the Joint Committee regarding site inspection of the impugned sand mining project, more than 200 local people were present near the said sand mining project site on the day of inspection. The assembled people were appearing to be bullock cart owners of the surrounding area. They demanded operation of sand quarry using bullock cart in their vicinity for their employment and to meet their livelihood.
- (b). Further, local people gathered informed that the persons having encroachment on government land is acting against the operation of sand quarry. In this regard, the Joint Committee clarified them that any issues on the encroachment of the government land may be taken up directly before the District Collector and revenue authority concerned to redress those issues. Further, it was also clarified to them that the Committee is not empowered to do anything on their own rather restricted to act on the mandates given by the Hon'ble NGT. The Committee did not receive any written submissions from them.



View of the local people assembled during the site inspection

5.(III). Submissions of the Applicant to the O.A.:

The Applicant to the O.A. Shri. A. Balasubramanian was present during the site inspection of the Joint Committee and made the following submissions:

- (a). The applicant claims that the illegal sand mining has been carried out by the project authority without complying the conditions stipulated in the EC and approved mining plan.
- (b). It was alleged that the project authority has not obtained clearance from the Standing Committee of NBWL, since the existence of eco-sensitive Mangrove Forest and Thamarankottai Reserve Forest within 10 km from the impugned sand mining quarry.
- (c). Project authority has achieved enhanced quantity of sand mining beyond the sanctioned quantity, beyond the extent of the approved mining lease area and beyond the depth of 1m stipulated in the permission.
- (d). The applicant claimed that there was standing crops in the alleged project area as per the revenue records obtained by him through RTI Act. He claimed that Project authority has destroyed the standing crops present in that area without prior permission.
- (e). The applicant claimed that due to continuous unregulated sand mining activities, the river flow pattern changed.
- (f). Alleged that there was in-stream sand mining by the project authority.
- (g). No action was initiated by the Regulatory authorities on the alleged illegal sand mining.
- (h). Further, the applicant submitted a written request on 11.10.2021 to the Committee, wherein informed that the illegal sand extraction is being carried out by bullock cart owners in the survey No. 8 and 9 of Chinna Avudayar Kovil Village by bullock cart owners and he requested to inform the same before the Hon'ble NGT(SZ) to prevent illegal sand mining. Copy of the written submission received from the Applicant is placed as **Annexure-III.**



Interaction of the Committee with the Applicant and the Project Authority during the site inspection.

6. Status of Statutory requirements:

In pursuance to the Order of Hon'ble Supreme Court dated the 27th February, 2012 in I.A. No.12- 13 of 2011 in Special Leave Petition (C) No.19628-19629 of 2009, in the matter of Deepak Kumar etc. Vs. State of Haryana and Others etc., prior environmental clearance become mandatory for mining of minor minerals irrespective of the area of mining lease. Ministry of Environment, Forest and Climate Change in consultation with State Governments has prepared Guidelines on Sustainable Sand Mining detailing the provisions on environmental clearance for cluster, creation of District Environment Impact Assessment Authority and proper monitoring of sand mining using information technology and information technology enabled services to track the mined-out material from source to destination. Therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government vide notification S.O. 141(E) dated 15th January, 2016 made amendments in the EIA notification, 2006 incorporating District Environment Impact Assessment Authority (DEIAA) for matters falling under Category 'B2' for mining of minor minerals in the said Schedule.

The term 'minor mineral' is defined in clause (e) of Section 3 of MMDR Act, 1957: '3 (e) "minor minerals" means building stones, gravel, ordinary clay, ordinary sand other than sand used for prescribed purposes and any other material which the Central Government may, by Notification in the Gazette of India declare to be a minor mineral;

The term `ordinary sand' used in clause (e) of Section 3 of the MMDR Act, 1957 has been further clarified in rule 70 of the MCR, 1960 as:

- (i) Purposes of stowing in coal mines,
- (ii) For manufacture of silvicrete cement,
- (iii) Manufacture of sodium silicate and for
- (iv) Manufacture of pottery and glass.

Accordingly, the Central Government has constituted the District Level Environment Impact Assessment Authority (DEIAA), for grant of environmental clearance for Category 'B2' Projects for mining of minor minerals, for all the districts in the country. However, in compliance with the Judicial Orders, DEIAAs are not functioning, since October, 2018. The environmental clearance for three years for the quantity of 54,000 m³ sand quarry located at S.F. Nos. 8 & 9 having an extent of 3.0 Ha. at Chinna Avudayar Kovil Village, Pattukottai Taluk, Thanjavur District was accorded by the District Level Environment Impact Assessment

Authority (DEIAA) – Thanjavur vide letter No. DEIAA-Tnj-I/F.No.75/1(a)/EC.No:7/2017 dated 06/08/2018, subject to the implementations of the conditions stipulated therein.

It is the responsibility of the project authority to comply with all the stipulated conditions. As part of Post environmental clearance monitoring, MoEF&CC vide its notification S.O. 637(E) dated 28.02.2014 has delegated the powers to State/Union Territory Environmental Impact Assessment Authority to issue show cause notice to project proponent in case of violation of Conditions of Environmental Clearance issued by the said authority and to issue direction for keeping the said EC in abeyance or withdrawing it. Thus, for category 'B' projects SEIAAs are responsible for EC monitoring.

Illegal Mining: In accordance with the Judgment dated 02.08.2017 of Hon'ble Supreme Court of India in W.P 114 of 2014 in the matter of Common Cause Vs Union of India & Ors., any mining activities which are not governed under the provision of Environment (Protection) Act, 1986, The Water (Prevention & Control of Pollution Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981, Forest Conservation Act, 1980, Wildlife Protection Act, 1972, shall be considered as illegal mining within the provision of section 21(5) of Mines and Minerals (Development & Regulation) Act, 1957 (MMDR Act) and the concerned authority shall take necessary action within the provision of MMDR Act. As per the provision of 23(C) of MMDR Act, the State Government is empowered to make rules for preventing illegal mining, and transportation & storage of Illegal minerals.

7. Observation of the Joint Committee on the ToR to the Committee and recommendations:

Based on the deliberations held during the meeting of the Joint Committee, subsequent site inspection of the area under question, scientific survey undertaken to ascertain the area & depth of mining and documents made available, the following observations are made on the ToR:

(i). Whether the project proponent (8th respondent) has committed any violation of the conditions imposed in the Environmental Clearance for the project:

It has been observed that project authority has not complied with several of the stipulated conditions in the EC, which inter-alia include the following:

- (a) NOC from the Standing Committee of the NBWL has not been obtained.

- (b) Not complied with the conditions laid down in the section V of Rule 36 of Tamil Nadu Minor Minerals Concessions Rules, 1959.
- (c) Earthen bunds and barbed wire fencing around the quarry lease area has not been made.
- (d) Not complied with the mining activity within the permitted area and also the quantity approved.
- (e) Depth of the quarrying has not been complied with as stipulated.
- (f) Mine closure activities have not been complied with.
- (g) Environmental monitoring for AAQ, Noise, ground water etc. have not been undertaken.
- (h) Details of trees present in the lease area and permission obtained for felling of trees in the lease area have not been made available.
- (i) Details are not made available regarding notice of opening of Mine submitted to the Director of Mines Safety, Chennai.
- (j) Change in the calendar plan including quantum of mineral has been observed.
- (k) Details are not made available regarding funds earmarked for the environmental protection and its utilization.
- (l) Greenbelt development has not been undertaken.

(ii). Whether any excess mining has been done:

During the visit there was a flow in the Agniyar River in the southern part of the mine lease area and thus the area mined beyond the boundary, if any, and exact depth of the mining carried out in southern part of the lease area could not be ascertained.





View of river flow during inspection of the Joint Committee

Further, as discussed in the above para 5(ii) and decided by the members of the Committee, a scientific survey was undertaken in order to ascertain the quantity of the sand mined-out, extent of an area mined out and depth of mining undertaken. In this regard, present Reduced Level (RL) values in the project area has been measured using levelling instruments by engaging qualified Surveyor. The initial RL values are compared with present RL values and the difference yielded the depth of excavation of sand. According to the survey report the position and Bed level of the Agniyar River situated about 4 km south east of Kottakudi and 1 km north of Chinna Avudayarkovil village, which falls in Pattukottai Taluk of Thanjavur District. The above survey was carried-out based on Bench Mark (BM) 6.858 m above Mean Sea Level (MSL) (22.5 feet). This BM fixed in the year 1955 and marked on parapet wall of Kamarajar Bridge, crossing a minor canal and situated about one kilometre west of Thokkalikadu Village (Towards Agniyar River). Area of survey executed (a) North-South 300 m and East-West 100 m, totaling 30000 sq.m. (b) 48 blocks measuring each block by 25m x 25m and RL derived based on BM 6.858.

The study results were superimposed on the coordinates of the approved mine lease area. Further, an extent of area wherein quarried beyond the approved mine lease area also demarcated on the map prepared using auto-cad. The above, study was undertaken in the presence of project authority and the applicant.

approved mine lease area and quantity, which tantamount illegal mining. The details based on the survey is Tabulated below.

Location	Extent of additional mined-out area beyond the approved mine lease area	Excess quantity of sand extraction achieved based on the survey
Western side of the approved Mine lease area	1937.50 sq.m	4629.24 m ³
Eastern side of the approved Mine lease area	787.29 sq.m	1424.20 m ³
Total	2724.79 sq.m	6053.44 m³

Project authority claimed that the loss of sand in the adjoining area of the approved Mine lease area and increased depth of excavation observed in the lease area are occurred due to washing of flood. In support of their claim project authority shared photographs of the flooded area, which is shown below.



The Committee has not accepted the above claim of the project authority on account of the following facts:

- Project Authority has not made Earthen bunds and barbed wire fencing around the quarry lease area as stipulated, in order to ascertain the project activities confined within the lease area.
- During the visit it has been observed presence of uneven, dis-continued surface texture with varying depths, which supports manual sand mining undertaken.
- Photographs and sketch showing the pit dimensions, depth etc. have not been recorded / maintained on weekly basis in the sand quarry.
- Even during the flood, parts of the river reach may experience deposition / replenishment on transport from the upstream.
- No data available on the rate of replenishment / sedimentation of sand on the river segment.

During the visit, Applicant reported fresh unauthorized / illegal sand extraction patches in the vicinity by the local people. The Applicant requested to apprise the same before the Hon'ble NGT for imposing strict monitoring mechanism to prevent illegal extraction of sand.



View of fresh unauthorized / illegal sand extraction patches

The Committee is of the opinion that Hon'ble Tribunal may pass appropriate Order/ direction to constitute a Taluk level monitoring Committee comprising of the following members to prevent illegal sand mining in the area:

1. Environmentalist or a person represented from each village namely Chinna Avudayar Kovil, Malaiyakkadu and Thokalikkadu.
2. Village Administrative Officers from Chinna Avudayar Kovil, Malaiyakkadu and Thokalikkadu Villages.

3. A Police Officer from both Athiramapattinam Police Station and Sethupavachathiram Police Station (three villages falls in two different police jurisdiction)
4. An Officer from Assistant Director of Geology and Mining, Thanjavur.
5. An Officer from the Office of the District Environmental Engineer, TNPCB, Thanjavur and
6. Tehsildar, Pattukottai Taluk.

The Taluk level monitoring Committee shall submit monthly action taken report to the District Collector, Thanjavur regarding illegal sand mining in the area and the District Collector shall periodically review the matter with the Taluk level monitoring Committee.

(iii). Whether in-stream mining has been done against the guidelines issued by the MoEF&CC on sustainable sand mining policy:

The Applicant claims that in-stream sand mining was carried-out in contravention to the guidelines issued by the MoEF&CC on sustainable sand mining policy. However, no supporting documents / photographs in support of his claim is made available either in the O.A. or during the inspection of the Committee. The alleged sand mining activity was already completed and no CCTV or any other digital surveillance was installed in the said quarry for monitoring the quarrying operation. Project authority completely denied the allegation regarding in-stream sand mining. Considering the above facts and in the absence of any documentary evidence before the Joint Committee, we are unable to arrive any conclusion in this regard and leave the matter open ended to Hon'ble Tribunal for taking further view in this regard.

(iv). Any damage has been caused to the environment and river ecology:

The Joint Committee is of the view that assessing the damage caused to the environment and river ecology due to the above said sand mining activity is difficult on account of the following facts:

- (a). The alleged sand quarry located on the river bed, which frequently receives water from the upstream during rainy season. So, arriving actual impact on the ground water level and quality in respect of the alleged sand quarry is not feasible. Further, no micro-level baseline data is available.
- (b). No monitored data on air quality during the operation of the quarry.
- (c). Previously operated sand quarry at Sy. No. 112 in the Malaiyakkadu village is located nearby the present sand quarry.
- (d). There are agriculture fields in the surrounding area irrigated through ground water, which will also play vital role in the aquifer system.

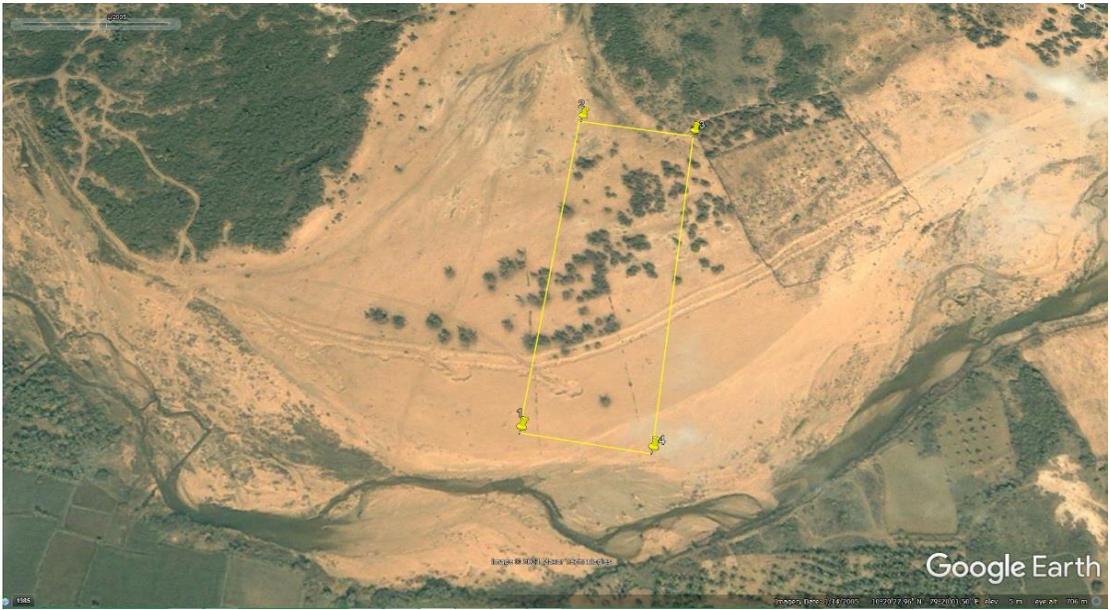
- (e). The duration of the project operation was shorter (11 months) and the project activity has already been completed. Transportation of sand was only by bullock cart.
- (f). The said sand mining area is comparatively small in magnitude.

(v).Whether trees have been damaged in the process of mining:

Project authority denied the allegation of the applicant and informed that no damage caused to the tree during the process of sand mining. However, during the site inspection, it was noticed few uprooted / damaged trees were still lying within the mine lease area, which are shown below.



The project authority claimed that these trees were damaged during the previous flood. In the EC letter did not mention about the presence of standing crops in the lease area and felling of trees. As the mining activity was already completed, an effort was made to understand the presence of standing crops using historical data of google image available for the said mine lease area. The area under question is demarcated using geocoordinates and are superimposed on google map, which is shown as yellow colored polygon.



view of presence of standing crops within mine lease area (January 2005)



View of presence of standing crops within mine lease area (January 2017)



View of presence of standing crops within mine lease area (June 2019)



View of presence of standing crops within mine lease area (February 2021)

Reportedly, the sand mining quarry was commenced on 14/03/2020 and completed on 02/02/2021. Corroborating the fact with the above google image, it has been observed that standing crops available in the image prior to 2020 is not available in the year 2021, which indicates the probable damage of standing crops during the operation of sand quarry. There are few trees still remaining within in the lease area and adjoining area without damage. If the damage is caused by the flood the entire trees would have been damaged. Further, drastic changes were noticed only after commencement of mining operation. Further, if the damage was caused due to flood, most of the damaged trees would have been washed and deposited in one side of the down stream. In view of the above, it appears that trees might have been damaged during the process of sand mining, but exact number of trees damaged / felled could not be ascertained.

(vi).Assessing the environmental compensation, if any, damage has been caused to the environment including expenses to be incurred for remediation and restoration.

Considering the difficulties mentioned above at para no.7(iv) for assessing the damage caused to the environment and river ecology, the Joint Committee determined the environmental compensation to ensure that levying of financial penalty remain within the brief of Section 15 of the Environment (Protection) Act, 1986, since the said project activity notified under the Environment (Protection) Act, 1986. Further, additional fine up to Rupees five thousand rupees for every day may also be imposed in case of failure continues by the responsible party beyond period by which remedial/corrective measures would have been implemented as suggested by the Regulatory Authority. Non-compliance may attract violation of one or several provisions of the said Rules and thus the total financial penalty amount may be arrived by adding up number of provisions violated.

Accordingly, the environmental compensation for the present case is arrived as under:

Environmental compensation (EC) = (financial penalty remain within the brief of Section 15 of the E(P) Act, 1986 i.e. Rs. 100000/-) + 5000 x No. of days for which violation took place from date of commencement of the project.

EC = 100000 + 5000 x 318 days (operation period of quarry) = Rs. 16,90,000/- (rupees sixteen lakhs and ninety thousand only).

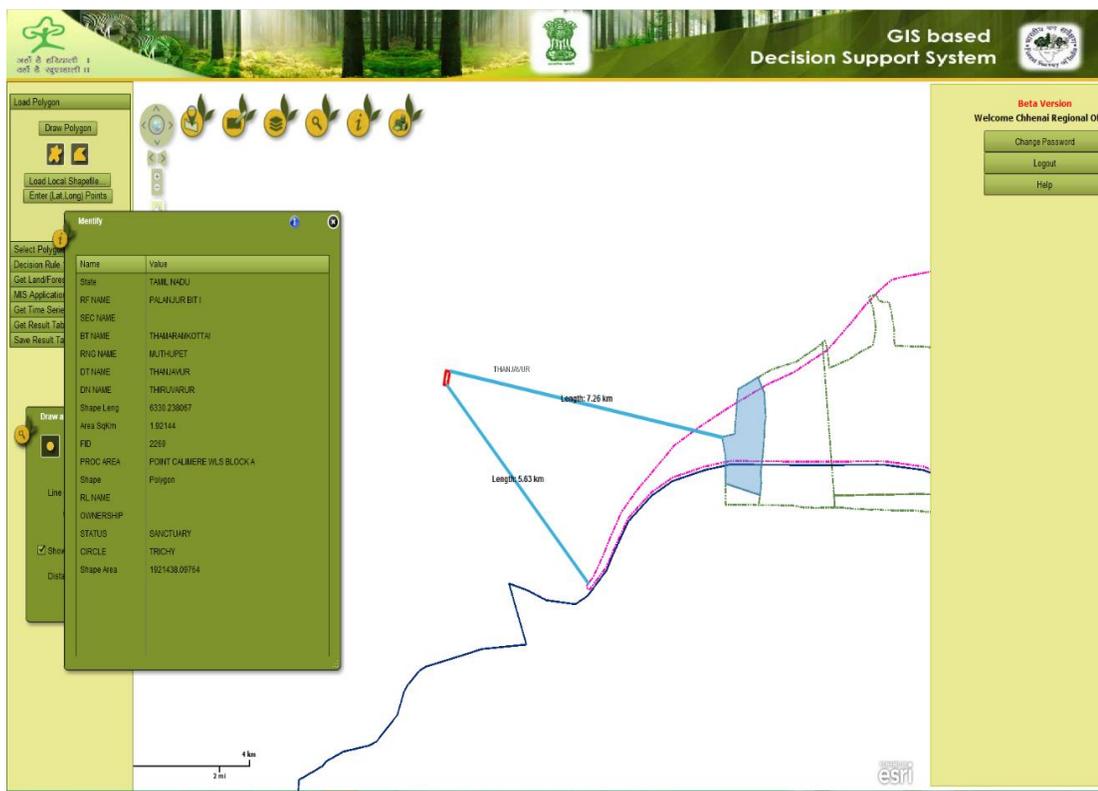
In addition to the above environmental compensation, in respect of the excess production achieved beyond the approved mine lease area, Hon'ble NGT may issue necessary directions to the Project authority for the payment of royalty, fee or any other payment as the case may be, under the provisions of the Tamil Nadu Minor Mineral Concession Rules, 1959 and other Acts as applicable.

The Hon'ble Tribunal may consider the above calculation or may arrive Environmental compensation as it deem fit under the circumstances of the case based on the precedents i.e. on the basis of the percentage of the project cost as desired by the Hon'ble Tribunal. However, the amount derived under environmental compensation may be effectively utilized for restoring the Agniyar river banks by providing suitable bund/embankment, so that direction of river flow will not alter and inundation of water in the adjoining area can be minimized. In the event of restoring the damage, the responsibility lies on the project authority i.e. Public Works Department, WRD, Govt. of Tamil Nadu. They should bear the entire cost for the restoration as desired by the Hon'ble Tribunal.

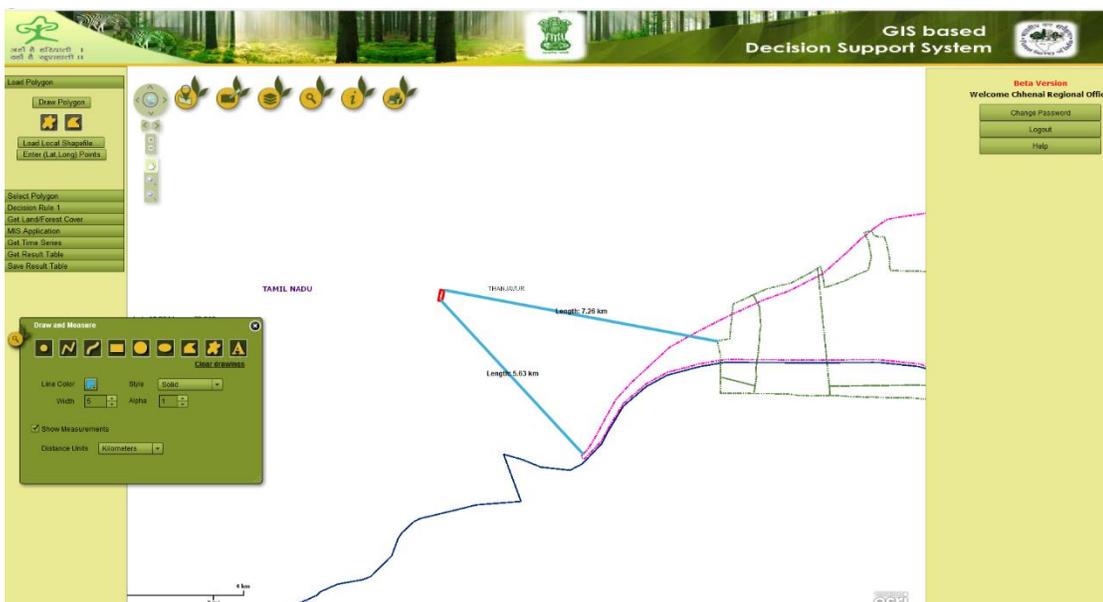
(vii).The Committee is also directed to compare the original revenue records and other registers available in respect of these things available and also satellite images.

During the visit the applicant produced copies of the revenue records obtained by him through RTI Act in support of his claim regarding standing crops existed on the Agniyar River (**Annexure-IV**). The applicant claimed that in the recent past, it was reclassified by the Revenue Authorities without showing the standing crops. In this regard, written submission received from the Tehsildar Pattukottai is placed herewith as **Annexure-V**.

Further, applicant's claim regarding existence of eco-sensitive Mangrove Forest and Thamarankottai Reserve Forest within 10 km from the impugned sand mining quarry and applicability of NOC from Standing Committee of NBWL under Wildlife Protection Act, 1972 was reviewed. Project Authority declared in the Form 1 that this project does not require NOC under Wildlife Protection Act, 1972. However, in the EC, a condition was stipulated that NOC from the Standing Committee of NBWL shall be obtained, if protected areas are located within 10 km from the proposed project site. The distance from the project area to the eco-sensitive Mangrove Forest and Thamarankottai Reserve Forest has been analyzed using GIS based decision support system, which confirmed that the impugned sand quarry is located within 10 km from the boundary of Eco Sensitive Zone, which is shown below



Distance between the sand mining project site to Reserved Forest Boundary (7.26 Km) and Eco Sensitive Zone (5.63 Km).



However, MoEF&CC vide Gazette Notification S.O.411(E) dated 23rd January, 2021 notified the Point Calimere Wildlife Sanctuary (Block – A) located in Thanjavur and Thiruvarur districts in the State of Tamil Nadu. The total area of the Sanctuary is 118.8591 square kilometre comprising of 93.0473 square kilometre in Thiruthuraipoondi taluk of Thiruvarur district and 25.8118 square kilometre in Pattukottaitaluk of Thanjavur district. The Point Calimere Wetland in the Sanctuary is the only area in Tamil Nadu which was declared as Ramsar site (Ramsar site No. 1210 on August 19th of 2002). Accordingly, in exercise of the powers conferred by sub-section (1) and clauses (v) and (xiv) of sub-section (2) and sub-section (3) of section 3 of the Environment (Protection) Act 1986 read with sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government notified an area to an extent varying from zero kilometre to 0.50 kilometre around the boundary of Point Calimere Wildlife Sanctuary in Thanjavur and Thiruvarur districts in the State of Tamil Nadu as the Eco-sensitive Zone. During the commencement of the project, draft notification was published and thus the project proponent would have been obtained NOC from the Standing Committee of NBWL under Wildlife Protection Act,1972.

No other returns / records / registers are made available to the Joint Committee by the Project Authority regarding payments of royalty, fee or other sum applicable to the State Government under the Tamil Nadu Minor Mineral Concession Rules, 1959 and its amendments or under the terms and conditions of quarrying permit.

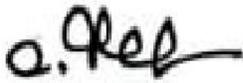
By considering all the above facts, observations and recommendations of the Joint Committee, Hon'ble Tribunal may pass appropriate Order(s) direction(s) as deemed fit.



Shri. P. Saravanan,
Regional Joint Director of Geology and
Mining, Tiruchirappalli Region.



Er. R. Gunaseelan,
District Environmental Engineer,
TNPCB, Nagapattinam.



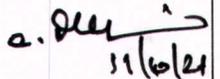
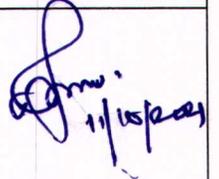
Er. C. Tholkappiyan,
Assistant Environmental Engineer,
State Level Environment Impact
Assessment Authority – Tamil Nadu.



Dr. M.T. Karuppiah,
Scientist- E &
Nodal Officer for the Joint Committee,
Ministry of Environment, Forest &
Climate Change,
Integrated Regional Office, Chennai.

Joint Committee meeting and site inspection of the sand quarry located at S.F. Nos. 8 & 9, Chinna Avudayar Kovil Village, Pattukottai Taluk, Thanjavur District held on 11/10/2021 in connection with O.A. No. 154 of 2021(SZ) in the matter of A. Balasubramanian Vs Union of India & Ors.

Attendance Sheet

Sl. No.	Name & Designation Department/Organization	Mobile No. & E-mail address	Signature
1.	Shri. P. Saravanan, Joint Director of Geology and Mining, Tiruchirappalli Region, Old Collectorate, Tiruchirappalli, Tamil Nadu – 620 001.	(E-mail: rjdmindustry@gmail.com ; Mobile: 9444822810)	 11/10/21
2.	Er. R. Gunaseelan, District Environmental Engineer, TNPCB, Nagapattinam.	E-mail: aetnpcbngai@yahoo.co.in ; deetnpcbthanjore@gmail.com ; Mobile: 8870470696)	 11/10/21
3.	Er. C. Tholkappian, Assistant Environmental Engineer, State Level Environment Impact Assessment Authority – Tamil Nadu. Chennai – 600 015.	(E-mail: cmantnseiaa@yahoo.com ; Mobile: 8056046133).	 11/10/21
4.	Dr. M.T. Karuppiah, Scientist- E, Ministry of Environment, Forest & Climate Change, Regional Office, Chennai-6.	(Ph. 9865139913; E-mail: murugaiyam@gmail.com).	
5.	Er. M. Muthaiah, Assistant Engineer, WRD, Mining and Monitoring Section, Manalmedu II.	(Ph. 9865139913; E-mail: murugaiyam@gmail.com). Ph. 8903150305 muthaiah10@gmail.com	 11.10.2021
6.	Er. M. Murugaiya, Junior Engineer, WRD, Mining and Monitoring Section, Thiruvaiyaru.	(Ph. 9865139913; E-mail: murugaiyam@gmail.com).	 11/10/2021
7.	E. Srinivasarao & Assistant Director Geology and Mining, Thanjavur.	9150960422	 11/10/21.
8.	A. BALASUBRAMANIAN (APPLICANT)	9786733- 966	A. Balasub 11.10.2021.

WRD

Mining and Monitoring Division,
Thanjavur.

Lower Cauvery Basin Circle,
Thanjavur

It is submitted that, the Chinna Avdaiyar Kovil Sand quarry at Pattukkottai Taluk of Thanjavur District Commenced on 14.03.2020. From the Commencement of quarry, around 1400 Number of bullock carts located near Pattukkottai, Peravurani and Orathanadu Taluks were indentified and checked by the Revenue Department for online allocation of sand for the carts. An unique identity number was allotted for each bullock carts. Each bullock carts were fixed with Radio frequency identity and mapped with details of the bullock carts such as the owner's name, address and their phone number with respective unique identity number. The bullock carts were divided into different schedules and the concerned officers of Water Resources Department scheduled the list of bullock carts for sale of sand. SMS were being sent to the register bullock carts owner's mobile number and scheduled bullock cart was only allowed entry in to the quarry.

The scheduled bullock carts at the quarry were verified scrupulously by the person deputed for the quarries under the supervision of Assistant Engineer Water Resources Department in charge of the Quarry.

Lease area demarcated with boundary stone at 50m intervals along the boundaries with marked shoal height, river bed height and depth to be excavated. Manual method is adopted for mining of sand which were to be loaded to the bullock carts.

Quantity of sand i.e height of sand to be loaded in the carts were already measured and marked for each carts. The marked level at each carts will be cross checked once again at the time of issue of permits and sent out from the quarry.

Digital payment such as point of sale (POS) machines were used for obtaining the amount from the cart owner's debit, credit card.

The Chinna Avdaiyar Kovil sand quarry closed on 02.02.2021 after nearly reached the approved mining quantity 53,674 m³ against 54000 m³. Total revenue created from this quarry is 93,53,464 Rupees (inclusive of GST 5%).


Executive Engineer, WRD,
Mining and Monitoring Division, Thanjavur

Sand Quarry Revenue details For MARCH 2020 to FEBRUARY 2021

Sl. No	District	Name of Sand Quarry	Year	April	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Excavated Quantity in M ³
1	Thanjavur	Chinna Avudayarkovil (Cart Load)	March 2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	539.12	539.12
			April 2020 to March 2021	0.00	336.77	2127.03	6734.69	5812.11	9234.29	10004.05	8187.81	4407.02	5459.78	831.31	0.00	539.12
			TOTAL	0.00	336.77	2127.03	6734.69	5812.11	9234.29	10004.05	8187.81	4407.02	5459.78	831.31	539.12	53674


Executive Engineer, WRD,
Mining and Monitoring Division, Thanjavur.

பதிவுஞ்சல் ஒப்புதல் அட்டையுடன்/

ந.க.10943/2013/அ-2
நாள்: 3-07.2013வருவாய் வட்டாட்சியர் அலுவலகம்,
பட்டுக்கோட்டை

//மேற்குறிப்பு//

பொருள்: தகவல் அறியும் உரிமைச்சட்டம்-2005-தஞ்சாவூர்
மாவட்டம்-பட்டுக்கோட்டை வட்டம்-அதிராம்பட்டினம்-
தொக்காலிக்காடு-திரு.ஏ.பாலசுப்பிரமணியன்,
த/பெ.ஆத்மநாதன்-என்பவர், சின்ன ஆவுடையார் கோவில்
கிராமப் புல எண்.9,12,20-ன் அடங்கல் நகல்
வழங்கிடக்கோரியுள்ளது-தொடர்பாக.

பார்வை: 1. திரு.ஏ.பாலசுப்பிரமணியன், த/பெ.ஆத்மநாதன்,
தொக்காலிக்காடு கிராமம், மனு, நாள்:16.05.2013.
2. பட்டுக்கோட்டை வருவாய் கோட்ட அலுவலரின்
குறிப்பாணை ஓ.மு.2388/2013/அ4 நாள்: 06.06.2013.
3.இவ்வலுவலக மேற்குறிப்பு இதே எண்ணிட்டது
நாள்:25.06.2013.

பட்டுக்கோட்டை வட்டம், அதிராம்பட்டினம், தொக்காலிக்காடு
கிராமத்தைச் சேர்ந்த திரு.ஏ.பாலசுப்பிரமணியன், த/பெ.ஆத்மநாதன்-என்பவர், தகவல்
அறியும் உரிமைச்சட்டம்-2005-ன் கீழ், சின்ன ஆவுடையார்கோவில் கிராமப்புல
எண்.9,12,20-ஆகியவற்றிற்கு 1401-ம் பசலி முதல் 1421-வரை அடங்கல் நகல்
வழங்கிடக்கோரியுள்ளது தொடர்பான மனு, பார்வை இரண்டில் காணும் கடித வழி
இவ்வலுவலகத்தில் பெறப்பட்டு, இவ்வலுவலகப் பதிவறையில் உள்ள மேற்படி
கிராமத்திற்குரிய அடங்கல் ஆவணங்கள் ஆய்வு செய்யப்பட்டன.

2. இவ்வலுவலகப்பதிவறையில் தேடி எடுத்ததில், தற்போது உடனடியாக
கிடைக்கப்பெற்ற 1406 முதல் 1412 வரையும் 1420 மற்றும் 1421 ஆகிய
பசலி ஆண்டுகளுக்குரிய, சின்ன ஆவுடையார்கோவில் கிராமப்புல எண்.9,12,20-
(புறம்போக்கு என வகைபாடு செய்யப்பட்டுள்ளது)-க்குரிய அடங்கல் பதிவேட்டின்
நகல்,பார்வை மூன்றில் காணும் இவ்வலுவலக மேற்குறிப்பு வாயிலாக எற்கனவே
மனுதாரருக்கு பதிவுஞ்சலில் அனுப்பப்பட்டது.

1420 - ஆம் வருஷம் சிவசக்தி - 2005

மார்ச் மாதம் 146

1420 - ஆம் வருஷம் சிவசக்தி - 2005

பக்கம் 2

மேல்க்கண்ட விவரம் காட்டி வருவது சிவசக்தி மாதம் 146

நில அளவு	நில அளவு	நில அளவு	நில அளவு	நில அளவு	நில அளவு	முதல் பாகம்				இரண்டாம் பாகம்							
						நில அளவு	நில அளவு	நில அளவு	நில அளவு	நில அளவு	நில அளவு	நில அளவு	நில அளவு				
9	5380					7	5000	307.0									
12	3445					7	3000	1.10.0									
20	1670					7	3000	0.08.0									
						7	3000	2.82.0									
						7	3000	0.91.0									
						7	3000	0.40.5									
மேல்க்கண்ட விவரம் காட்டி வருவது சிவசக்தி மாதம் 146										மேல்க்கண்ட விவரம் காட்டி வருவது சிவசக்தி மாதம் 146							
மேல்க்கண்ட விவரம் காட்டி வருவது சிவசக்தி மாதம் 146										மேல்க்கண்ட விவரம் காட்டி வருவது சிவசக்தி மாதம் 146							

12 மார்ச் 2005

சிவசக்தி மாதம் 146

146

அனுப்புநர் திரு.க.கணேஸ்வரன், வட்டாட்சியர், பட்டுக்கோட்டை.	பெறுநர் அறிவியலாளர்- E, சுற்றுச்சூழல் அமைச்சகம், காடுகள் மற்றும் பருவநிலை மாற்றம் ஒருங்கிணைந்த மண்டல அலுவலகம், சென்னை - 600 006.
ந.க.6468/2021/ஆ9, நாள் : 18.10.2021.	

அய்யா,

பொருள்	வழக்கு - தேசிய பசுமை தீர்ப்பாயம் (தென்மண்டலம்) - தஞ்சாவூர் மாவட்டம் - பட்டுக்கோட்டை வட்டம் - அதிராம்பட்டினம் சரகம் - தொக்காலிக்காடு கிராமம் - திரு. A. பாலசுப்பிரமணியன் என்பவர் மாண்பும தேசிய பசுமை தீர்ப்பாயத்தில் (தென்மண்டலம்) வழக்கு எண் O.A. 154/2021(SZ) என்படி தொடரப்பட்டு கூட்டாய்வு குழு அமைத்து தீர்ப்புரை வரப்பெற்றுள்ளது - கூட்டாய்வு குழுவினரால் ஆய்வு செய்யப்பட்டது - அறிக்கை அனுப்புதல் - தொடர்பாக.
பார்வை	1. தஞ்சாவூர் மாவட்ட ஆட்சியர் அவர்களின் செயல்முறை ஆணை ந.க. 280/Mines/2018, நாள்: 10.02.2020. 2. மாண்பும தேசிய பசுமை தீர்ப்பாயம் (தென்மண்டலம்) வழக்கு எண் O.A. 154/2021(SZ), தீர்ப்புரை நாள்: 24.09.2021. 3. மற்றும் தொடர்புடைய ஆவணங்கள்.

பார்வையில் காணும் கடிதங்களின்பால் தங்களின் கனிவான பார்வையினை கொணர விழைகிறேன்.

தஞ்சாவூர் மாவட்டம், பட்டுக்கோட்டை வட்டம், அதிராம்பட்டினம் சரகம், தொக்காலிக்காடு கிராமத்தைச் சேர்ந்த திரு. A. பாலசுப்பிரமணியன் என்பவர் மாண்பும தேசிய பசுமைத் தீர்ப்பாயத்தில் (தென்மண்டலம்) வழக்கு எண் O.A. 154/2021(SZ) என்படி வழக்கு தொடரப்பட்டு கூட்டாய்வு குழு அமைத்து தீர்ப்புரை வரப்பெற்றுள்ளது.

இந்நேரவில் பட்டுக்கோட்டை வட்டம், அதிராம்பட்டினம் சரகம், சின்னஆவுடையார் கோவில் கிராமம் புலஎண் 8 ல் 1.45.5 ஹெக்டேர்ஸ் மற்றும் புலஎண் 9 ல் 5.38.0 ஹெக்டேர்ஸ் ஆகியவை கிராம நிலஉடைமை மேம்பாட்டுத்திட்ட பதிவேட்டில் கீழ்க்கண்டவாறு பதிவுகள் உள்ளன.

புல எண்	பரப்பு (ஹெக்டேர்ஸ்)	வகைபாடு	குறிப்பு
8	1.45.5	அரசு புறம்போக்கு	ஓடை, ஆறு
9	5.38.0	அரசு புறம்போக்கு	ஓடை, ஆறு

பார்வை 1- ல் காணும் செயல்முறை ஆணையின்படி மேற்காணும் புலனண்களான 8 மற்றும் 9 ல் 3.00.0 ஹெக்டேர்ஸ் பரப்பளவில் மட்டும் அரசு விதிமுறைகளுக்குட்பட்டு மணல் குவாரி அமைத்து செயல்பட ஆணையிடப்பட்டுள்ளது.

இந்நேர்வில் பட்டுக்கோட்டை வட்டம், அதிராம்பட்டினம் சரகம், தொக்காலிக்காடு கிராமத்தைச் சேர்ந்த திரு. A. பாலசுப்பிரமணியன் என்பவர் மாண்பும தேசிய பசுமைத் தீர்ப்பாயத்தில் (தென்மண்டலம்) வழக்கு எண் O.A. 154/2021(SZ) என்படி வழக்கு தொடரப்பட்டு பார்வை 2-ல் காணும் தீர்ப்புரையில் கூட்டாய்வு குழு அமைத்து அறிக்கை வழங்கிட தெரிவிக்கப்பட்டுள்ளதால் கடந்த 11.10.2021 அன்று கூட்டாய்வு குழுவினரால் ஸ்தல ஆய்வு மேற்கொள்ளப்பட்டது.

இந்நேர்வில் கூட்டாய்வு குழுவினரால் ஆய்வு மேற்கொள்ளப்பட்ட போது வழக்கின் வாதியான திரு. A. பாலசுப்பிரமணியன் என்பவர் கூட்டாய்வு குழு தலைவரிடம் சின்ன ஆயுடையார் கோவில் கிராம அடங்கலில் மேற்படி புல எண்களான 8 மற்றும் 9-ல் கடந்த 1401 ஆம் பசலி ஆண்டு முதல் 1421 பசலி ஆண்டு வரை சவுக்கு, முந்திரி போன்ற நிலையான பயிர்கள் தனிநபர்களின் பெயர்களில் பதிவாகியுள்ளதாகவும், 1422 பசலி ஆண்டு முதல் அவ்வாறு பதிவு செய்யப்படவில்லை எனவும் தெரிவித்ததன் பேரில் கூட்டாய்வு குழு தலைவர் அவர்களால் பட்டுக்கோட்டை வட்டாட்சியரின் அறிக்கை வழங்க தெரிவித்துள்ளார்.

இந்நேர்வில் வட்டாட்சியர் அலுவலகத்தில் உள்ள ஆவணங்களை பரிசீலனை செய்ததில் ஒவ்வொரு பசலி ஆண்டிலும் கிராம நிர்வாக அலுவலரால் அரசு புறம்போக்கு இடத்தில் பயிர்கள்/மரங்கள் மூலம் ஆக்கிரமணம் செய்யப்பட்டுள்ள நபர்களுக்கு பி-யாதஸ்து வழங்கப்பட்டு தண்ட தீர்வை வசூலிக்கப்பட்டு வந்த நிலையில் கடந்த 10 ஆண்டுகளாக மேற்படி புல எண் 8 மற்றும் 9 ஆகியவற்றில் தனிநபர்களால் ஆக்கிரமணம் செய்யப்பட்ட மரங்கள் ஏதும் இல்லை என கிராம நிர்வாக அலுவலரின் ஆய்வில் தெரிய வந்ததால் பி-யாதஸ்து வழங்கப்படவில்லை. எனவே, ஆக்கிரமணதாரர்களின் பெயர்கள் அடங்கல் பதிவேட்டில் பதிவுகள் மேற்கொள்ளப்படவில்லை. மேற்படி புலங்கள் பொதுப்பணித்துறையினரின் கட்டுப்பாட்டில் பராமரிக்கப்பட்டு வருகிறது என்பதையும் பணிவுடன் தெரிவித்துக்கொள்கிறேன்.

தங்கள் நம்பிக்கையுள்ள,

வட்டாட்சியர்,
பட்டுக்கோட்டை.

18/10/2021

அளவைப்படிவ. எண் 23

பட்டினத்தேவன்

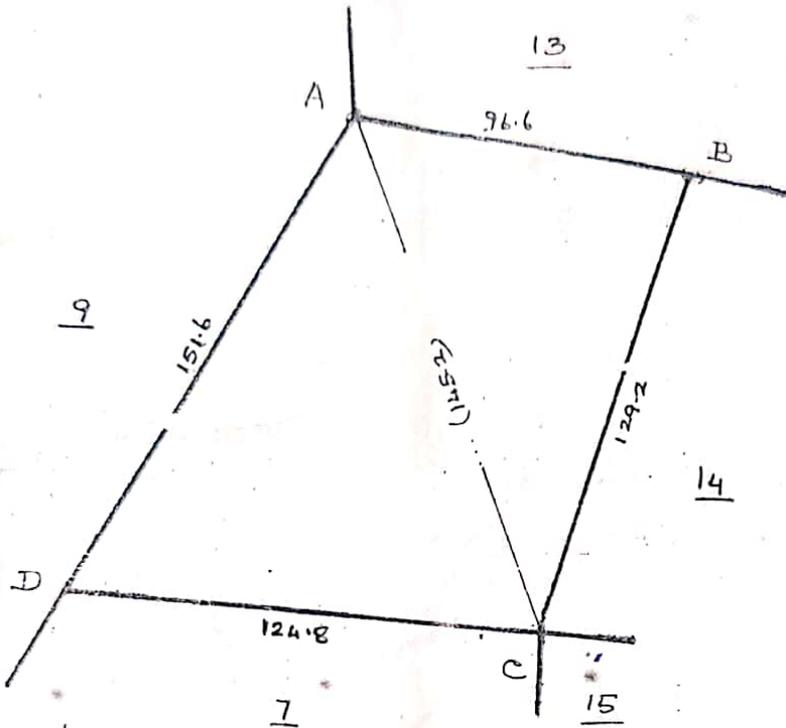
பட்டினத்தேவன்

புல எண். 8

எண் 249
சிராமம்
பெரிய சின்ன ஆலையார் கோவில்

பரப்பு. சென்டீமீட்டர்

ஏர். 455



Handwritten signature

18.10.2021
சிராம நிர்வாக அலுவலர்
146, சின்ன ஆலையார் கோவில்
பட்டினத்தேவன் வட்டம்

சான்றவர்
சு. சிவசாமி
21.4.82

அளவு. 1 மீட்டர் = 2000 மீட்டர்

மாண்புமிகு அமைச்சர்:
பெரிய சின்ன ஆலையார் கோவில்
26.4.82

மாவட்ட அலுவலகம்

வட்டியுள்ள நிலம்

40 ஏக்கர், 9

சுற்றுச்சூழல் அமைதி

எண். 249

சீரமைப்பு

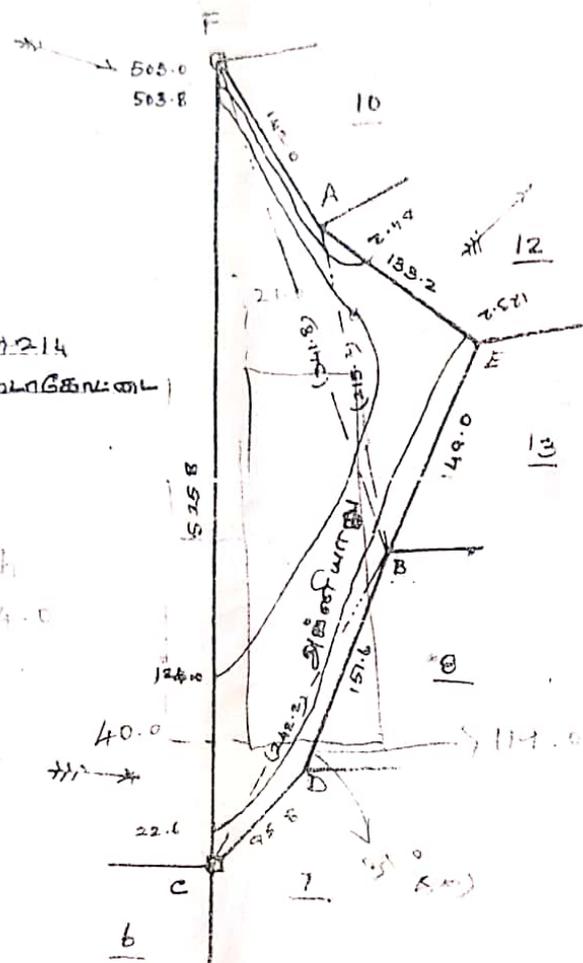
சுற்றுச்சூழல் அமைதி

பரப்பு: 114 ஏக்கர்

5 ஏ. 38

எண். 214
சுற்றுச்சூழல் அமைதி

↑
4.0

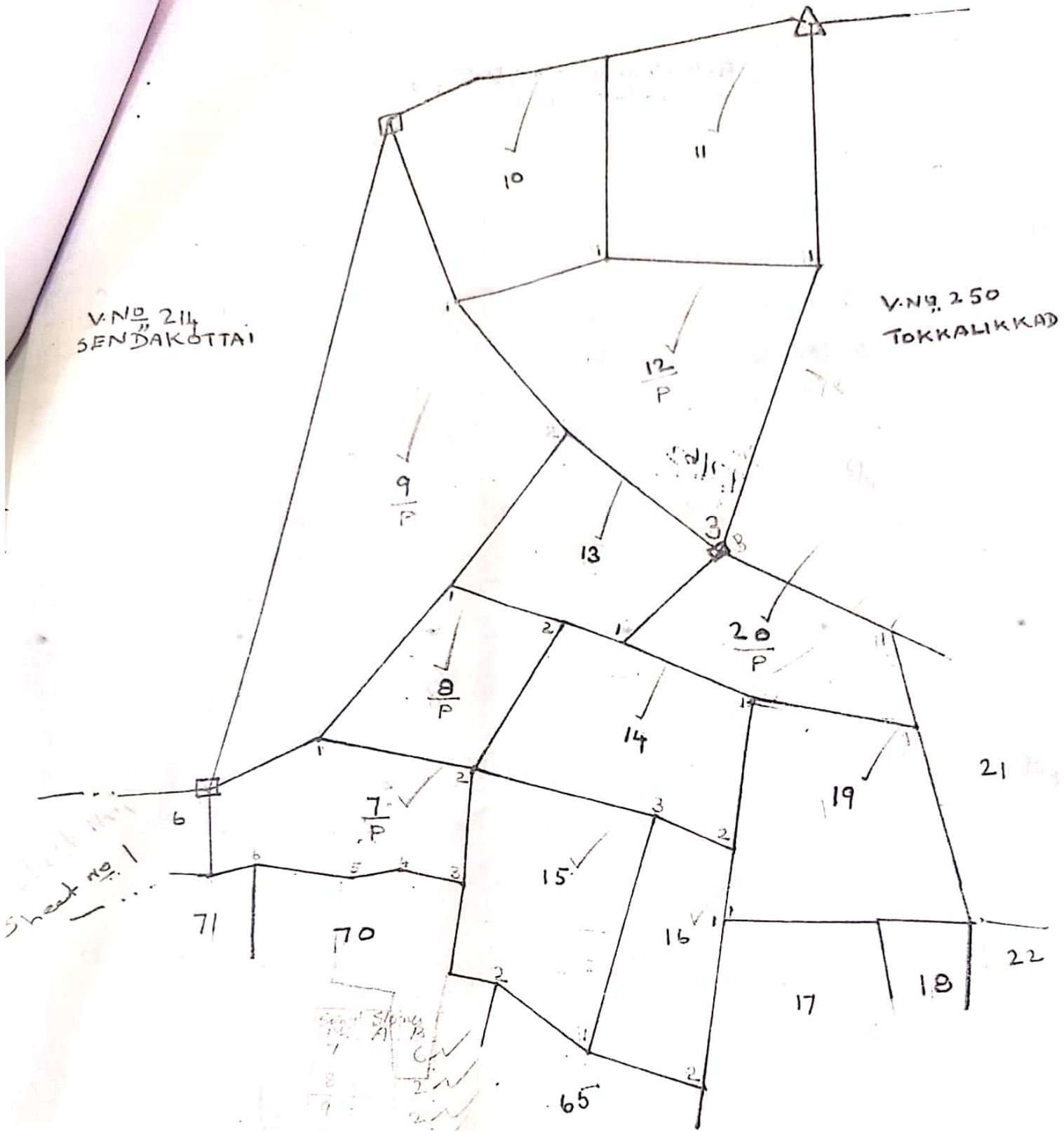


AG
18.10.2021
சீரமைப்பு நிர்வாக அலுவலர்
146, சன்னி ஆஷடையாங்கோவில்
பட்டுக்கோட்டை வட்டம்

		F	
		(341.8)	
		212.8	30.
		B	
		C	
		(242.2)	
D	24.6	149.6	
		B	
		(215.2)	
E	91.0	71.2	
DE	8.0	60.4	

V.No 214
SENDAKOTTAI

V.No 250
TOKKALIKKAD



Sheet no. 1

Serial Sl. No. 13
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

[Signature]
சீராம நர்வாக அலுவலர்
14C, சின்ன ஆவலையார்கோவில்
பட்டுக்கோட்டை வட்டம்

22

