

Item No.7 BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 15 of 2020 (SZ)

(Through Video Conference)

IN THE MATTER OF:

Tribunal on its own
suo motu initiated proceedings
based on the news item published in
Malayalam Newspaper dt.20.01.2020
under the caption
“Burning banks of Bharathapuzha”.
Anti social elements continue to burn
dried riparian grasslands”

1. Government of Kerala,
Principal Secretary,
Environment Department,
Thiruvananthapuram.
 2. Additional Chief Secretary,
Forest and Wildlife Department,
Thiruvananthapuram.
 3. The Director,
Department of Environment & Climate Change,
Thiruvananthapuram.
 4. Principal Chief Conservator of Forests,
(Head of Forest Force)
Thiruvananthapuram.
 5. Divisional Forest Officer,
Palakkad, Kerala.
 6. District Collector,
Palakkad District.
- ...Respondent(s)

Date of hearing: 28.1.2021

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER

For Applicant(s): By Court.

For Respondent(s): Mr. E.K.Kumaresan for R1 to R6

O R D E R

The above case has been Suo Motu registered by this Tribunal on
the basis of the News Paper report published in Malayala Manorama,

daily dated 20.01.2020 under the caption “നീരിപ്പുകഞ്ഞു നിളാതീരം - ഉണങ്ങിയ ആറ്റുവഞ്ചി പുല്ലുകൾക്ക് വീണ്ടും തീയിട്ട് സാമൂഹിക വിരുദ്ധൻ (***Burning Banks of Bharathapuzha , Anti Social elements continue to burn dried riparian grasslands***).

2. It is seen from the report, in banks of Bharathapuzha in East Ottappalam, there is grass land which is acting as a nesting place for many birds, both local as well as migratory making it a habitat with rich biodiversity. There was a fire which occurred on 19.01.2020, destroying this grass land which in fact destroyed the nests and eggs of several birds. Similar incidents happened earlier 3 or 4 days prior to this as well. But no attempt was made by the authorities to prevent such man made disasters affecting the bio diversity of the river.

3. So this Tribunal had admitted the matter and appointed a Joint Committee comprising of Principal Chief Conservator of Forests (Head of Forest Force), Vazhuthacaud, Thiruvananthapuram, Divisional Forest Officer, Athira Nagar, Puthuppariyaram, Palakkad and District Collector, Palakkad District to look in to the matter and submit a factual and action taken report. They were also directed to consider the question of source of fire as who was responsible for the same and what are the remedial measures to be taken to restore the grass land in that area so as to restore the biodiversity of Bharathapuzha river and posted the case to 2.3.2020. Thereafter, the matter has been adjourned either at the request or by notification. On 20.7.2020, this Tribunal had considered the report dated 14.7.2020 signed by the Divisional Forest Officer, Palakkad on behalf of the Joint Committee which was extracted in para 5 of the order which reads as follows:

“On 23.01.2020, the Honourable Tribunal appointed a joint committee comprising of Principal Chief Conservator of Forest, District Collector, Palakkad and Divisional Forest Officer, Palakkad to look into the matter and submit a factual and action taken report. The Divisional Forest Officer, Palakkad is directed by the Tribunal to act as the nodal officer.

In obedience to the above order the Joint committee conducted thorough investigation with the help of revenue, police officials and forest authorities and by way of local inspection of the place of incident. The committee also enquired the matter with the local inhabitants residing nearby. Based on the above enquiry and inspections this report is hereby submitted before the Honourable Tribunal.

The place of incident is situated in the Bharathapuzha River in Ottapalam – II village of Ottapalam Taluk, near to the Mayannur bridge which connects Ottapalam to Thrissur district. This place is an inter district border of Palakkad and Thrissur Districts. Shoranur – Palakkad railway line is also passing through the side of this river.

A thorough inspection was conducted and it is seen that about one Acre of grass land area is burned in the incident. This grass land is formed by drying out of water during summer season in the river bed. The burned area is not on the permanent bank of the river. This is a temporary grass land formed during the summer season and this land will submerge under water for about six months in a year during rains. Since, this is a temporarily formed grass land, only some grass species and scattered trees are present in that area. There is no evidence observed in the field about the damage to any birds, nest or eggs, as no remains of any birds or egg was observed on ground during field investigation.

Riparian Vegetation is a forest type categorized by few evergreen and semi ever green species restricted along river margins and banks forming an arrow fringe. None of this riparian vegetation species are found to be burned in that area. The area is full of a grass consisted is Saccharum Spontaneum species. This grass area starts to grow in the river bed, from where the water is drained out

during the month of December or January. During summer these grass gets dry. On enquiry with neighbouring people the committee could not understand that the dried river basin is being used by local people for relaxing and enjoying scenic beauty. It is also understood that this place is used by Anti social elements for anti social activities like consumption of alcohol and cooking for food. The fire noted by the Honourable Tribunal may be caused due to above such activities. Since the area is not coming under any protected/reserve/vested forest, no regular patrolling is conducted by the Forest Department in this area.

Even though the above incident has not caused any adverse effect on the bio diversity or loss to the avian population for vegetation of this area, there is chance of affecting the same if the fire is spreading to the river banks. So, a master plan can be prepared for protection of river banks and avoiding of similar incidents as a joint venture by Revenue Department / Police and Local self governments. Photographs taken from the area during the inspection is also enclosed herewith for the kind perusal of the Honourable Tribunal.

All the facts stated above are best to the knowledge and belief and this report is submitted before this Honourable Tribunal for the kind consideration and further actions.”

4. Thereafter, this Tribunal has passed the following order:

“It may be mentioned here that this Tribunal had constituted a committee and directed them to submit a report. The report has to be filed by the committee signed by all the members of the committee and not by one of the committee members alone.

Further, it is mentioned in the report that if this is allowed to continue, there is a chance of affecting the bio-diversity and also river, so a master plan has to be prepared for protection of the river banks and avoiding similar incidents as a joint venture by Revenue Department / Police and local self-government.

So, we are directing the committee to submit the report and also action plan required for the purpose of protecting the Bharathapuzha River and prevent such things occurring in future with short term and long term measures with a shorter time line within a period of six weeks.

The committee is directed to submit the report to this Tribunal on or before 17.09.2020 through e-mail or by e-filing at ngtszfiling@gmail.com.”

The case was posted to 17.9.2020. Thereafter, it was adjourned from time to time at the request of the counsel appearing for the State Departments and lastly posted to today as per order dated 24.12.2020

5. When the matter came up for hearing today through Video Conference, Mr. E.K. Kumaresan, represented the respondents.

6. We have received the report submitted on behalf of the Joint Committee dated 19.10.2020 which reads as follows:

“In obedience to the above order, the Joint Committee conducted thorough investigation with the help of revenue, police officials and forest authorities and by way of local inspection of the place of incident. The Committee also enquired the matter with the local inhabitants residing nearby. Based on the above enquiry and inspections this report is hereby submitted before the Hon’ble Tribunal.

The place of incident is situated in the Bharathapuzha river in Ottapalam-II village of Ottapalam Taluk, near the Mayannur bridge which connects Ottapalam to Thrissur district. This place is an inter district border of Palakkad and Thrissur Districts. Shoranur – Palakkad railway line is also passing through the side of this stretch of the river.

A thorough inspection was conducted and it is seen that about one acre of grass land area was burned in the incident. This grass land is formed in the river bed by drying out of water during summer season. The burned area is not on the permanent bank of the river. This is a temporary grassland formed during the

summer season land this land submerges under water for about six months in a year during rains. Since this is a temporarily formed grass land, only some grass species and scattered saplings/poles are present in that area. There is no evidence observed in the field about the damage to any birds, nest or eggs, as no remains of any birds or egg was observed on ground during field investigation.

Riparian vegetation is a forest type characterized by a few evergreen and semi ever green species restricted along river margins and banks forming a narrow fringe. None of this riparian vegetation species are found to be burned in that area. The area is full of a grass and consisted of *Saccharum spontaneum* species. This grass area starts to grow in the river bed from where the water is drained out during the month of December or January. During summer these grass gets dry. On enquiry with neighbouring people we could understand that the dried river basin is being used by local people for relaxing and enjoying scenic beauty. It is also understood that this place is used by anti social elements for anti social activities like consumption of alcohol and other such activities. The fire noted by the Hon'ble Tribunal might have been caused due to above such activities. Since the area is not coming under any protected/reserve forest, no regular patrolling is conducted by the Forest Department in this area.

The above incident has not caused any significant adverse effect on the bio diversity or loss to the avian population or vegetation of this area, but there is a chance of affecting the same if the fire spreads to the river banks. So a Master Plan can be prepared for protection of river banks and avoiding of similar incidents as a joint venture by Revenue Department/Police and Local Self Governments”

7. It is mentioned in the report that a Master Plan can be prepared for the protection of the river banks to avoid occurrence of similar incidents as a joint venture by the Revenue Department/Police and Local Self Governments. The Committee also mentioned that it is required to be protected which will have necessary impacts on river protection.

7. The fifth respondent – Divisional Forest Officer, Palakkad has filed an independent report dated 19.1.2021 with a Master Plan for conservation of riparian biodiversity along Bharathapzha river which reads as follows:

CHAPTER 1-Bharathapuzha river

Total Basin area	:	6186 km ²
Basin area in Kerala State	:	4400 km ²
District in which basin are located	:	Palakkad, Malapuram, Trissur
Origin of River	:	Annamalai Hills
Length of main stream	:	209 km
Main tributaries	:	Gayathripuzha, Chitturpuzha, Kalpathipuzha, Thuthapuzha

Introduction

The River Bharathapuzha also known as Nila. It is the second-longest river in Kerala, after the Periyar River. For the first 40, the Bharathapuzha follows an almost northerly course till Pollachi. At Parli both Kannadippuzha and Kalpathippuzha merge and flow as Bharathapuzha and follow a westerly course until it empties into the Arabian Sea at Ponnani. Thootha River merges with Nila at Pallippuram. As Thootha river is rich in water, after its merger, Nila becomes thicker in flow.

The Bharathapuzha is the lifeline of many cities and villages; (in Chittur, Bharathapuzha is known as "Sokanasini", (Chittur-Thathamangalam,) (Kodumbu-Thiruvallathur) Palakkad, (Parli-Kottayi), (Mankara-Perigottukurissi),(Lakkidi-Thiruvilwamala Killikkurussimangalam, Ottappalam, Shoranur, Cheruthuruthy Pattambi, Thrithala, Thiruvegappura, Kudallur, Pallipuram and Kumbidi. The village of Parudur, including the town of Pallipuram, stand near the confluence of this river and the River Thootha or, simply, Thuthapuzha

PURPOSE OF THIS MASTER PLAN

This plan will provide general guidelines for the protection of Bharathapuzha river banks, bio stabilization to control the river flow and rebuild riparian habitat. This also aims to provide technical advice that will assist local government, community groups and landholders to restore, protect and manage river bank.

This incorporates a general discussion on site preparation, plant materials selection criteria, zonation of river bank, planting, its monitoring and maintenance and other river bank stabilization treatments including

installation guidelines and materials requirements. Successful application of these guidelines will ensure the protection of river banks from degradation.

GOALS AND OBJECTIVES

The goals of a river restoration programme can be broadly classified as ecological and socioeconomic goals.

- To stabilize and restore the riverine ecosystem.
- To protect the riverine habitat from degradation
- A convergent effort from line departments for a common goal

Objectives need to be specific, realistic, achievable and measurable. Exploring project objectives at the beginning of the project helps for planning and designing of activities, which will limit the changes and costs that can surface later in the design.

The objectives of this master plan may ultimately aim to achieve the following benefits;

- To reduce erosion and stabilize stream banks
- To restore riparian forests
- To increase biodiversity
- To protect riparian vegetation from damages of fire, and other degradation.

PROJECT PERIOD PROPOSED

The project is proposed to be executed in a phased manner from 2020-21 to 2021-22, because many of the grass bed caches fire were presently submerged in water. Biodiversity survey of the grass beds can be conducted only during next summer of year 2021. It will also help in proper planning and execution of master plan, so that the works can be implemented in a time bound manner.

Ist Phase in 2020-21

As part of 1st phase, fire protection activities can be taken up along the river banks with the help of NGO's and police department. For the successful completion of phase I, awareness may be given to local public and display boards needs to be erected in previous fire areas.

IInd Phase in 2021-22

In the 2nd phase, detailed survey and demarcation of area, enrichment planting, fire protection activities etc may be carried out.

PHASE 1ACTIVITY

1. Identify the 2019 fire damaged areas of Bharathapuzha river
2. Protection can be given to such areas by regular patrolling by forest or police department staff.
3. Local NGO's help can be taken for getting information regarding the illegal activities such as waste dumping, tree cutting, setting fire etc
4. Awareness can be given to public regarding the importance of riparian habitat and foraging and breeding grounds of birds and wildlife
5. Display boards can be setting up in specific location

Required Project Cost -PHASE 1

Particulars	Rs. In lakhs
Cost of display boards	1.0
Engaging Man mazdoors for fire protection at Previous year fire locations 1200MM	8.00
Printing Notices and Pamphlets&publicity materials	1.0
Required project cost	10.00

PHASE 2ACTIVITIES

1. PRELIMINARY SURVEY

This includes data collection of survey records, demographic, socioeconomic and ecological aspects.

- A. Land Survey records will help in identifying actual extent of land available with government.
- B. Demographic information (population, density etc.) will help to analyse the number of people directly or indirectly depending upon a particular river ecosystem.
- C. Socio economic aspects include economic benefits to society in the form of various resources like timber, fuel wood, food, NTFPs, employment for the local people and aesthetic benefits.
- D. Ecological factors such as soil type, elevation, flood, low-flow, groundwater levels,

- E. Biodiversity survey will record the presence of natural wildlife using the riparian habitat foraging and breeding, it will help in documenting the existing richness in this area and measure will be taken to protect such species.
- F. Mapping the area and fixing the boundary of the river bank using GIS is critical to initiate the activities. This will help to calculate the total time and manpower required.

2. RIVER BANK STABILIZATION / ENRICHMENT PLANTING

Riverbanks are ecologically fragile ecosystems which continuously face serious threat from various natural and anthropogenic activities. Protection of the river/stream bank will lead to the stabilization of the water courses, and making the area productive along the river or stream.

Planting of trees, shrubs, herbs or grasses along the riverbank is a vegetative method of stabilization referred to as riverbank bio-stabilization whereby the root system hold the soil in place and reduce the impact of water flow. It is basically refer to the use of live and dead herbaceous and woody plant materials in combination with natural and synthetic support materials for slope stabilization, erosion reduction, and vegetative establishment. In simple terms, riverbank bio-stabilization uses plants and sometimes inert material to increase the strength and structure of the riverbank. Vegetation appears more complex to work with but also offers unique benefits. Vegetation as a live material can be self-sustaining under suitable conditions, it can adapt to temporal changes in topography, it provides habitat for other species, provides food sources for other species, and can prevent the warming of river flow temperature by overbank shading.

- Lower Zone is adjacent to river having low to medium water level. This zone is usually water saturated throughout the year. The species seen in this zone have the ability to survive prolonged inundation and are flexible enough to withstand high velocity water current. Grasses and shrubs tolerant to continuous inundation can survive in this zone.
- Middle zone is having medium to high water level. This zone is usually saturated 3-4 months in a year. This zone includes some tree, palm or bamboo species along with grasses and shrubs tolerant to occasional water inundation.
- Upper zone- In the zone above the high water level and rarely to nil water saturation. Trees, palms or bamboos are seen with or without shrubs.

SELECTION OF SUITABLE SPECIES

Plant selection should be done based on following characteristics

- Select indigenous species
- Suitable for climatic and edaphic conditions of the site
- Good root anchoring capacity
- High tolerance to adverse conditions like salinity, drought, waterlogging etc.
- High growth rate
- Multiple uses (food, timber, fodder, NWFPs etc.)
- High regeneration and coppicing power

3. PROTECTION

A committee should be formulated at village level with the help of NGO's to protect the banks from fire and activities that damage the riparian habitat like cutting trees, waste dumping etc.

4. ACTION PLAN

The proposed plan may consist of the following steps:

- i. Preparation of Master plan
- ii. Setting up a multidisciplinary team
- iii. Survey and demarkation
- iv. Preparation of site specific restoration plan
- v. Plan implementation and execution of restoration measures with the help of line departments.
- vi. Monitoring to review timely progress, effectiveness of the projects and maintenance
- vii. Community involvement and people's participation

5. EXECUTION OF THE PROJECT.

This project will be executed through a special team formulated by taking staff from various line departments under the present committee.

Required Project Cost -PHASE 2

Particulars	Rs. In lakhs
Survey and demarcation	1.0
Enrichment planting	10.00

Engaging Man mazdoors for fire protection at fire sensitive locations 1200MM	8.00
Printing publicity materials	1.0
Required project cost	20.00

8. So considering the circumstances and also on the basis of the Master Plan submitted by the fifth respondent for conserving biodiversity, we feel that the matter can be disposed of by accepting the Master Plan submitted by the fifth respondent with a direction to the State and District Administration and the authorities who have been mentioned in the Master Plan to carry out the same within a time frame and then submit a compliance report to this Tribunal.

9. So the application is disposed of as follows:

(i) The Joint Committee Report dated 18.1.2021 and also the proposed Master Plan submitted by the fifth respondent along with report dated 18.1.2021 are recorded and accepted.

(ii) We direct the Committee to conduct study that has been proposed to be conducted as per the Master Plan during dry season and then complete the process of preparation of Master Plan that has been recommended by the Committee, before this Tribunal within a period of four months.

(iii) We direct the Chief Secretary, State of Kerala to provide necessary logistic support and other coordination between the departments including financial assistance if any required for the purpose of conducting study and issue necessary instructions to the respective Departments to implement the Master Plan in its letter and spirit and submit a status report to this Tribunal.

(iv) In the mean time, the district administration, police and local bodies are directed to make periodical inspection to avoid fire incidence recurring in future taking into account that the biodiversity will have to be protected for the protection of Bharathapuzha river etc.

The Registry is directed to communicate this order to the Members of the Committee and also the Chief Secretary, State of Kerala and the Police Chief, Palakkad District for compliance through e-mail immediately.

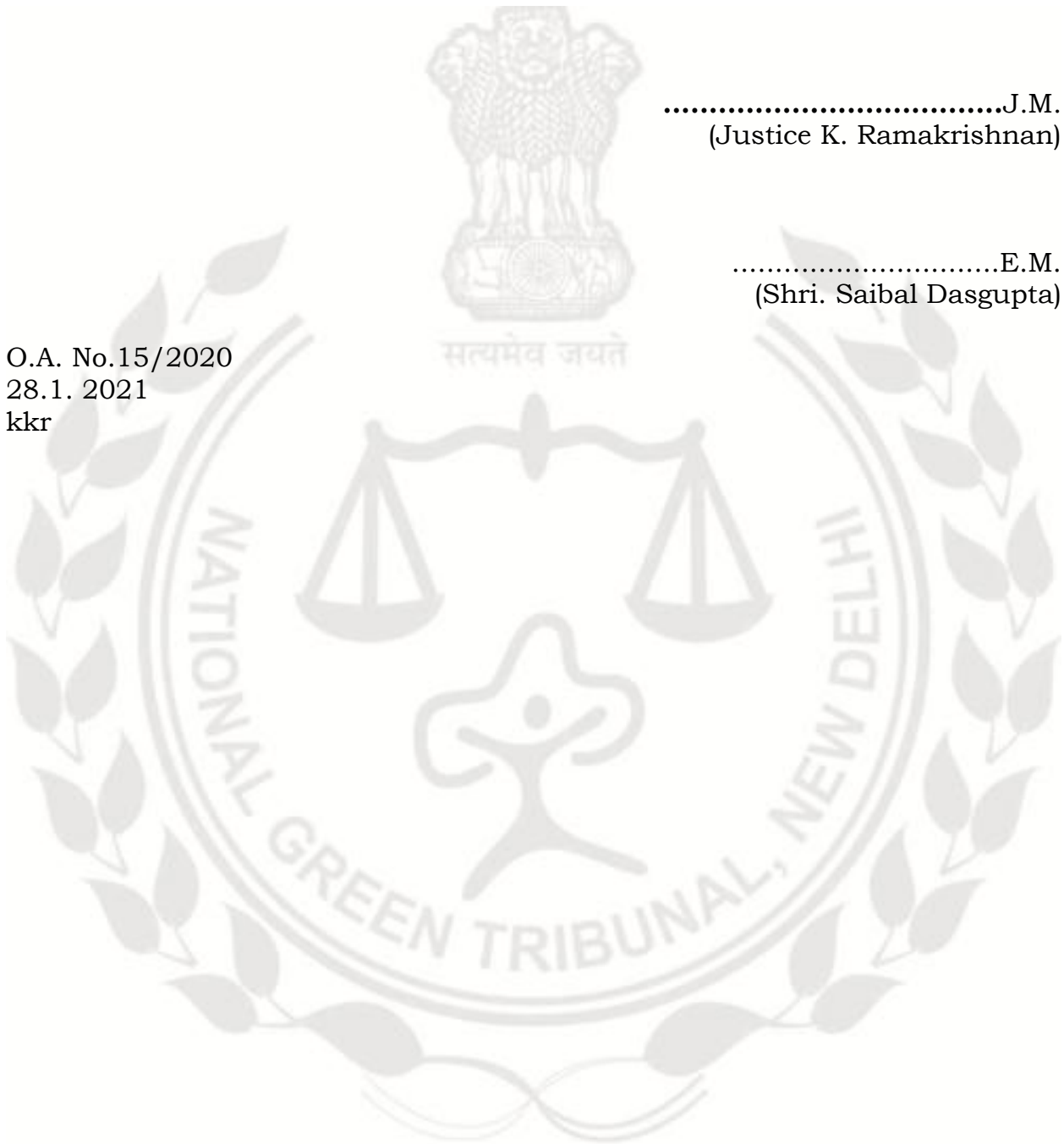
The office is directed to place the matter before this Tribunal as and when the reports are received, as directed, for further consideration.

With the above directions and observations, the application is disposed of.

.....J.M.
(Justice K. Ramakrishnan)

.....E.M.
(Shri. Saibal Dasgupta)

O.A. No.15/2020
28.1. 2021
kkp



NGT