

IN THE HIGH COURT OF JUDICATURE OF KERALA  
AT ERNAKULAM.

W.P.(C) NO. 30801 OF 2007-S

Geetha	---	Petitioner.
	-Versus-	
Union of India and others	---	Respondents.

**N O T E**

**I. Introduction:**

- 1.1 The challenge in this Writ Petition is to the Environment clearance granted to the Athirapilly H.E.P. by the Moef.  
[W.P. – Ext.P17, Vol.III, page 661]

Project area - Bio-diversity Hotpot

- 1.2 The project is proposed by the KSEB across the Chalakudy River and within a stretch of the river that falls in a U.N. designated Biodiversity hotspot, the Western Ghats. The UNEP has identified 25 Biodiversity hotspots the world over. 9 more hotspots have been added to the list recently. The Western Ghats are identified as one among the eight '*hottest hot spots*'.

The Biodiversity hotspots have been identified on the basis of two strict criteria, ie. the presence of endemic species and 70 to 75% habitat loss. The area of the

earth's surface occupied by the hotspots has fallen from 15.7% to 2.3%. The hotspots contain the *history of life* and are *gene pools*, the reservoirs of plant and animal life on earth. But, the most remarkable places on earth are also the most threatened and hence the urgency to protect and preserve these unique, species rich areas for all humanity.

[I.A.No.10208 of 2009 - Ext.P-79, page 26 at 32, 33]

- 1.3 The Southern Western Ghats in Kerala consist primarily of the Anamalai and Agasthyamalai ranges. The project area falls in the Anamalai ranges, i.e. the region between the Palghat gap and Munnar. This region consists of national parks like Eravikulam and Indira Gandhi, reserves like the Parambikulam tiger reserve and several sanctuaries like Chinnar, Chimony, Thattekad, Idukki and Peechi-Vazhani.
  
- 1.4 The important rivers of Kerala like Barathapuzha, Periyar, Chalakudy and Pampa (partially) flow through the Anamalai region of the Southern Western Ghats. The Kerala Western Ghats has about 60 dams, out of which 30 dams are linked to hydro-electric projects of the KSEB and the rest are dedicated to irrigation. 55 of these 60 dams fall in the Southern Western Ghats. The rivers flowing through the Southern Western Ghats are heavily exploited.

## Chalakydy River - Over burdened.

- 1.5 The Chalakydy river which has a length of 144 Kms, has its source in the Anamalai hills. The initial course (0-15 Kms) of the river falls in the State of Tamil Nadu. 0-80 Kms falls within the South Western Ghats. 40% of the water is diverted by Tamil Nadu under an inter-state water agreement (PAP agreement).

The stretch of the river upto the 90 Kms mark from the source presently sustains 6 dams (the three dams of the Parambikulam group, Tamil Nadu Sholayar, Kerala Sholayar and Poringalkuthu) and a major river diversion scheme (the Chalakydy River Diversion Scheme) that has an Ayyacut of 14,000 hectares of agricultural land.

The stretch of the river that flows through the Western Ghats is over-exploited and reduced to a chain of dams. The natural course of the river is long lost. The KSEB is responsible for destroying the natural flow regime of the Chalakydy River. A dam converts flowing water into still water. The adverse consequences follow. The present project is proposed in this stretch at the 70 Km mark from the source making it the 7<sup>th</sup> dam in 70 Kms.

[W.P. – Vol.1, page 6, Para 2]

[Reply – Ext.P61, page 94]

## The Project

- 1.6 The project with FRL of 241m, dam height of 23m and storage of 8.33Mm<sup>3</sup> is conceived as a tailrace project of the existing Poringalkuthu H.E.P. The installed capacity is to be 163 MW consisting of a dam toe powerhouse of 3 MW (2 x 1.5 MW) and a main powerhouse of 160 MW (2 X 80 MW). Turbines of the size 80MW or above are not in use in any project in the State, except at Idukki. The firm energy generation is to be 233 MU, i.e.16% of the installed capacity. The project is intended to meet the peak load demand for power between 7 and 11 PM.

Though a tail race project, the present project has a high installed capacity of 163MW compared to the 48MW (4x8MW + 1 x 16MW) capacity of the Poringal HEP and 54MW (3x18MW) capacity of the Kerala Sholayar Project. The water availability for the project reckoned to be mainly from the Poringal HEP and partially from spill and own catchment of 26 sq. Km. during the monsoon.

[W.P. -Ext.P10 - Vol. II, page 229]

A total of 138.60 hectares of forest land is proposed to be diverted for implementing the project.

- 1.7 The dam is proposed to be constructed 5 Kms upstream of the Athirappilly Water Fall. The Water Fall, which has a height of 45 M, is the second highest in South India. The waterfall has been voted by the people of the State as the second most important heritage site after the Silent Valley

from among all the natural and man made heritage sites in the State.

[I.A.9277 of 2009 - page 1, 2, para 3, 4]

The bulk of the waters that presently reach the Water Fall is proposed to be diverted to the main power house. The diverted water will rejoin the river some 2 Kms down stream of the Water Fall.

The project is conceived in such a manner that the waters that reach the main powerhouse will not flow over the Water Fall. The waters that presently reach the Water Fall is thus proposed to be apportioned between the Water Fall and the main powerhouse on the implementation of the project.

Issues raised for consideration:

- 1.8 There are serious lacunae in all three stages of the clearance process i.e. in the EIA report, public hearing and clearance process.

*Is the Moef justified in granting clearance under the EIA notification, 1994 and EIA notification, 2006?*

- 1.9 The precautionary principle, public trust doctrine and principle of inter-generation equity are part of the law of the land. The Bio-diversity of the project area is unique. The Athirappilly Water Fall, which will be effaced on the

implementation of the project, is the second highest in South India.

*Have the larger environment issues been ignored?*

1.10 The cumulative impact of the proposed project on an overburdened river basin have not been studied at all. An integrated study of the Chalakudy River basin was required by Moef, the CWC and the CEA. Such a study was never conducted. However, clearance is granted.

*Has the cumulative impact been ignored?*

1.11 The impact of the project on down stream users (drinking water and irrigation) has been trivialized.

*Have the social and economic issues been ignored?*

1.12 Is not the project having a abnormally high installed capacity and extremely low efficiency? Any reasonable cost benefit analysis will be against the implementation of the project considering the ecological and economic costs involved.

*Why this project at all?*

1.13 The Scheduled Tribes and other Traditional Forest Dweller (Recognition of Rights in Forest Lands) Act, 2006 notified on 1-1-2008 confers substantial rights on tribals in forest land.

*Will the implementation of the project snatch away vested rights?*

## **II. Background facts:**

1979 to 1998

2.1 The project was envisaged by the KSEB in 1979. The Moef rejected the project in 1989 for four reasons including loss of biological diversity, species extinction and loss of the Athirappilly Water Fall.

[W.P. - Vol.1, page 7, para 3]

[W.P. - Vol.II, page 192]

2.2 The Environment Impact Assessment notification, 1994 (EIA notification, 1994) was notified by the Moef under the Environment Protection Act, 1986 on 27-1-1994.

[W.P. – Ext.P1, Vol.1, page 43]

The KSEB commissioned the TBGRI to conduct an EIA study for the purposes of satisfying the requirement of the EIA notification, 1994.

The TBGRI conducted a rapid EIA study during the monsoon months of 1996 and submitted a report stating inter alia that there will be a significant reduction in flow of an approximately a 11 Kms stretch of the river downstream. It was also stated that *'the effects of impoundment and operation of the power project will be felt on the Chalakudy river, over a length of 16 Kms.'*

[W.P. - Ext.P4 -Vol. I - page 99 at 110 and 111]

The EIA notification, 1994 was amended on 10-04-1997. A public hearing became mandatory. The Moef granted environment clearance to the project on 20-1-1998.

[W.P. – Ext.P2, Vol. 1, page 58]

### Round 1

2.3 The environment clearance was challenged before this Hon'ble Court on various grounds. It was argued, inter alia, that a public hearing ought to have been held after publishing an executive summary of the TBGRI report. The Division Bench of this Hon'ble Court, by judgment dated 17-10-2001 in O.P.No. 3581 of 2001-B and connected cases held that the KSEB was bound to comply with the requirements of the amended EIA notification, 1994. The KSEB was directed to conduct a public hearing and forward the details thereof to the Moef for fresh decision. It was observed that the complaint that the TBGRI study was conducted in the monsoon months in violation of the clear prescription in that regard appears to be true. It was also noted that the KSEB projects are not performing satisfactorily and that transmission losses are high. Directions to the KSEB to rectify these defects were issued as a 'first step'.

[W.P. – Ext.P3, Vol. I, page 62 at pages 89, 91, 94 & 95]

2.4 The executive summary of the TBGRI report was published.

[W.P. – Ext.P4, Vol.I, page 99].



A public hearing was conducted on 6-2-2002. The hearing panel noted that the public is opposed to the project and recommended a comprehensive and participatory EIA study including study of the downstream side of the river.

[W.P. – Ext.P6, Vol. I, page 124 at 127].

The details of the public hearing were not forwarded as directed by this Hon'ble Court. The KSEB apparently did not pursue its application for clearance on the basis of the TBGRI report and the public hearing held thereon.

- 2.5 The EIA notification, 1994, was amended on 13-6-2002. It became necessary to publish the EIA report and then to conduct a public hearing thereon.

[W.P. – Ext.P7, Vol.I, page 139].

The Moef ignored the requirements of the amended notification and granted clearance to the project on 10-2-2005 on the basis of an EIA report prepared by WAPCOS. It was stated that the issues raised at the public hearing held on 6-2-2002 have been clarified in the comprehensive EIA report of WAPCOS.

[W.P.-Ext.P8, Vol. I, page 149].

## Round 2

2.6 The Petitioner challenged the environment clearance before this Hon'ble Court. The Athirapilly Gram Panchayat filed another writ petition. It was argued inter alia that the WAPCOS report had not been published, that a public hearing had not been conducted thereon and that the requirements of the amended EIA notification, 1994 had not been complied with. These contentions were accepted by this Hon'ble Court in the judgment dated 23-3-2006 in W.P.(C) No. 9542 of 2005-S and connected case.

[W.P. – Ext.P9, Vol.I, page 154 at 166]

2.7 The report of WAPCOS was published.

[W.P. – Ext.P10, Vol.II, page 170].

A public hearing was conducted on 15-6-2006. While so, the EIA notification, 1994 was replaced by the EIA notification, 2006 on 14-8-2006. The KSEB put in a fresh application for environment clearance under the EIA notification, 1994 on 6-11-2006, i.e. after the EIA notification, 2006 was notified. The Moef granted environment clearance for the project on 18-7-2007.

[W.P. – Ext.P17, Vol.III, page 661].

## Environment clearance process in India.

2.8 The first step for any project proponent is to prepare a DPR and secure an EIA report from an agency like

WAPCOS. The consultant has to conduct a study and submit a report. The consultant determines if the project is viable from the environment point of view and if the ecological costs are acceptable.

WAPCOS, which has conducted 150 Rapid EIA studies and 25 comprehensive studies, admits that it has never opined that a project should not be implemented on environment grounds. In other words, WAPCOS prepares reports that enable clearances to be obtained.

[I.A.No.12580 of 2009 - Ext.P83, pages 3, 4]

2.9 The Hon'ble Minister for Environment and Forests has gone on record to state that 98% of all applications for environment clearance are granted by the Moef.

[I.A.No. 9278 of 2009, page 3, para 8]

Hence, virtually no project is struck down on environmental grounds either at the stage of the EIA study/Report or by the Moef.

2.10 The result is that projects are cleared on a routine basis at an alarmingly high rate. After the EIA notification, 2006 came into force on 14-9-2006, the Moef has cleared 2747 projects at the rate of 2.5 projects per day.

[Caravan October, 2009, page 13 left column]

## Monitoring Mechanism.

2.11 The monitoring mechanism of the Moef for ongoing projects is virtually non-existent. The details regarding monitoring protocol and mechanism of the regional offices of the Moef have been furnished by the Ministry under the R.T.I. Act. An NGO, Kalpavriksh has prepared a report tabulating the questions and answers. It is admitted by the Moef that its southern regional office has '*No specific norms or protocols are recommended by the Moef, New Delhi for the officers of regional offices who go for inspection of projects to monitor the compliance of environmental clearance conditions.*' It is also conceded the southern regional office has '*No fixed frequency is followed for monitoring projects.*' The southern regional office has only four officers to monitor 1255 projects cleared in the southern region and no surprise visit has ever been undertaken by them so far.  
[Calling the bluff - pages 9, to 13-table 3, 4,5, 7, 8]

2.12 The other problem for the Moef is on account of '*double agents*' like Sri. P.Abraham, who was the head of the river valley committee, which cleared the present project. Sri. P.Abraham, was on the board of directors of several construction companies engaged in implementing Hydro-electric Projects. The clearances granted by the Abraham Committee are being reviewed by the Moef and he has since been forced to tender his resignation.  
[I.A.No. 9728 of 2008 - page 2,3, para 4 to 7 and 9]

2.13 The Moef has also initiated a process of review of the clearances granted in ecologically sensitive areas like the western ghats. An attempt is being ....to ascertain whether these sensitive regions can *'cope with the additional burden that will be caused by these projects'*. Clearances granted are under a moratorium pending the review.

[Hindustan Times 23-9-2009. 'No new projects in coastal areas, river basins']

2.14 The Moef has not filed any counter-affidavit or affidavit in the Writ Petition. The other Central Agencies, CWC and CEA who are parties to W.P.No. 31022 of 2007, have also not filed any affidavit/statement thus far.

2.15 The environment clearance process in this country is reduced to a farce. The grant of a clearance after following on 'elaborate procedure' by panels of 'experts' does not give any assurance to a court of law that the damage to the environment on account of the implementation of the project falls within acceptable limits. Very few clearances are the subject matter of proceedings in a court of law. An independent review in public interest is justified particularly in cases where extensive damage to the environment is likely.

### **III. Impact on Water fall:**

#### Condition in the clearance.

3.1 The Environment clearance is subject to the condition that a minimum flow of 7.65 m<sup>3</sup>/s must be maintained at all times to preserve the water fall. During the summer months power generation should only be between 7 and 11 P.M. The KSEB is asked to sacrifice power generation so that the minimum flow is maintained.

[W.P. – Ext.P17, Vol. III, page 663]

3.2 The average tailrace discharge from the Poringalkuthu H.E.P. is stated to be 7.65 m<sup>3</sup>/sec from January to March and 6.23m<sup>3</sup>/s in April and May according to the KSEB. According to WAPCOS, the average monthly flow during the dry months (September to May) is 7.65m<sup>3</sup>/s. The proposed project does not envisage a storage dam. It is to be a peak load station. Hence, if the condition imposed is adhered to then no power can be generated from January to May by the main power house of 160MW. The very object of the project, to provide peak load generation during the summer months, is defeated.

[Counter of Respondent No.5 - page 21 at para 24.3]

[Counter of Respondent No.5 - page 62 and 63 at Para 52.1]

[Counter of State – Page 10 – Para 10(b)(2)]

[Counter of State – Page 14 – Para 10(e)(2)]

[W.P. - Ext.P10 - Vol.II, page 231, 431]

- 3.3 It is conceded by the KSEB and WAPCOS that there are three sources of water at the proposed project site, i.e. Poringal power house discharge, Poringal Spill and yield from river catchment of Athirappilly. The spill and yield from own catchment will be available, if at all, during the monsoon months. The water availability data reckoned by KSEB and WAPCOS evidences that the average water availability in all months is well in excess 7.65m<sup>3</sup>/s.  
[W.P. - Ext.P10 - Vol. II, pages 229 and 232]

How much of the water will be diverted?

- 3.4 According to the KSEB 94% of the waters that presently reach the water fall will be diverted to the main power house for power generation.  
[Counter of R5 – Page 20, 21, 23, 25, 26, 61, 62, paras 24.1, 24.2, 26, 25.3, 52.1]

The Government however states that only 34% of the water will diverted during the summer months.

[Counter of State – Page 11, para 10(c)]

- 3.5 The contradictory stand of the State and the KSEB clearly indicates that the conditions prescribed in the clearance will be violated. The project itself is unviable. No power will be generated during the peak hours in the summer months if the conditions are to be complied with.

3.6 The quantity of water that presently reaches the proposed dam site of the Athirappilly H.E. Project was reckoned as 1269 Mm<sup>3</sup>. The DPR of 1999 relied on by WAPCOS estimated that 171 Mm<sup>3</sup> of this water would reach the dam toe power house and consequently the water fall. The remainder of 1078 Mm<sup>3</sup> would reach the main power house bypassing the water fall. Thus, the WAPCOS report proceeded on the footing that the water fall will get only 13.47% of the water that it is presently receiving.

[W.P. - Ext.P10 - Vol.II, pages 229 & 233]

3.7 After the preparation of the WAPCOS report the water availability at the proposed dam site has been reassessed at 1169 Mm<sup>3</sup>. A condition to let 7.65 m<sup>3</sup>/s flow over the waterfall for 24 hours a day throughout the year has been imposed. If that condition is complied with then 241 Mm<sup>3</sup> will be required for the water fall. Then, the water reaching the main power house would be 1169 - 241 = 928 Mm<sup>3</sup>. In this situation, the waterfall will get only 20.61% of the water that it is presently receiving.

[W.P. - Ext.P10 - Vol.II, page 534]

The project is conceived in such a manner that water has to be removed from the system of the water fall to generate power. A fraction of the water that presently reaches the water fall alone will reach the water fall on the implementation of the project.



3.8 The figure of 7.65 m<sup>3</sup>/s of water flowing over the waterfall is an arbitrary figure, arrived at by the KSEB on the footing that the day time discharge from the Poringal Power House for the period from September to May corresponds to this figure. There is no study done to ascertain the water required to maintain the beauty of the waterfall. The KSEB proceeds as though the waterfall should be satisfied with this quantity of water throughout the year.

[W.P. - Vol. II - Ext.P10, page 231, 431]

3.9 The fact remains that the beauty of the waterfall cannot be maintained with the release of 7.65 m<sup>3</sup>/s. As already stated much more quantity of water flows over the waterfall presently. According to the DPR of 1999 referred to by WAPCOS the average water flowing over the proposed dam site and consequently over the waterfall is far in excess of this figure. The average is much more even in the months of April and May. In fact, the figure of 7.65 m<sup>3</sup>/s is close to the minimum flow of 7.26 m<sup>3</sup>/s recorded in May, i.e. during peak summer. The stand of the KSEB that the beauty of the waterfall can and should be maintained with this minimal quantity throughout the year is misconceived.

[W.P. - Vol. II - Ext.P10, page 232]

#### **IV. EIA Report - Period of study.**

Enter WAPCOS.

4.1 The period of study preceding the WAPCOS report is alleged to be from 1-1-2002 to 31-12-2002. The sequence of events evidence that a study for the prescribed period was neither possible nor attempted. The judgment of this Hon'ble Court in the first round of cases was pronounced only on 17-10-2001. Even during the pendency of the case the KSEB had apparently taken a decision on 25-7-2001 to engage WAPCOS.

[Counter of R5 – Ext.R5(ac), page 260].

Immediately after the judgment, i.e. on 3-11-2001 the KSEB decided to entrust the work to WAPCOS. [Counter of R5 – Ext.R5 (ac)2, page 261].

It would appear that WAPCOS was actually soliciting the work and assuring help to get rid of the '*technical problems*' by doing liaison work.

[Counter of R5 – Ext.R5(ah), page 314 at 315 and 316].

The work order was issued for a rapid EIA study from January to April 2002 only on 22-1-2002.

[W.P.- Ext.P22(5), Vol. III, Page 682].

Even at the public hearing held on 6-2-2002 the KSEB had no case that another EIA study was in progress.

4.2 The period of the rapid EIA study was to be from January to April, 2002. There was no work order for May 2002. The agreement for the Rapid EIA was executed only on 4-

4-2002, i.e. after the period of study fixed for the rapid EIA.

[I.A.No. 10208 of 2009 - Ext.P74 - page 5]

On 17-5-2002 the Moef called upon the KSEB to furnish information on six specified aspects. An '*integrated study of Chalakudy Basin*' was called for.

[I.A.No.10208 of 2009 - Ext.P76, page 19]

WAPCOS wanted the KSEB to agree for extending the study to a comprehensive one for the whole year. The KSEB stated on 20-5-2002 that it was agreeable but on condition that no further amount would be paid. The KSEB wanted a comprehensive EIA study and report at the cost of a rapid EIA study and report.

[I.A.No.9238 of 2008 - Ext.R5(at) - page 4]

In the middle of June 2002, i.e. on 19-6-2002 WAPCOS requested the KSEB for extending the study to an integrated study of the river basin. WAPCOS would state that the Moef was insisting on such a study and a comprehensive EIA study over a one year period.

[Counter of R5 – Ext.R5(ad)2, page 263].

WAPCOS was told to prepare a comprehensive EIA report only on 10-7-2002.

[W.P. – Ext.P22(12), Vol.III, Page 689].

The work order in this regard was issued only on 25-11-2002.

[W.P. – Ext.P22(13), Vol. III, page 690].

[W.P. – Ext.P22, Vol. III, Page 678]

The agreement for conduct of the comprehensive EIA was executed only on 30-1-2003, i.e. after the period fixed for the study.

[I.A.No. 10208 of 2009 - Ext.P75, page 12]

4.3 The following conclusions can be drawn from the above:

- (i) There was no study from 1-1-2002 to 22-1-2002.
- (ii) There was no study or work order for May and till 19<sup>th</sup> June 2002.
- (iii) There was no study or work order from April till 25-11-2002.
- (iv) It is inconceivable that any study could have been conducted during periods when there was not even a work order. This is particularly so because the KSEB stated in the middle of May, 2002 that it was not willing to pay anything more than what had been paid for the originally agreed rapid EIA.
- (v) WAPCOS had no intention to conduct any study. They were engaged only to facilitate a clearance by doing liaison work.

**V. EIA report – Study area and scope of study.**

Integrated study of the Chalakudy Basin:

5.1 The hearing panel of 6-2-2002 recommended a study of the Chalakudy river basin. The need for a comprehensive EIA study of the river basin was required by the Moef in its letter of 17-5-2002 and raised by WAPCOS in its letter of 19-6-2002 and this suggestion was accepted by the KSEB in July 2002. Hence, the summer months had gone by long before a decision was taken to study the entire river basin.

[W.P. - Ext.P6 - Vol. I - page 124 at 127]

[I.A.No. 10208 of 2009 - Ext.P76, page 19]

[Counter of R5 - Ext.R5 (ad)2, page 263]

[W.P. - Ext.P22(12) - Vol. III, page 689]

5.2 The stand of the KSEB in its counter-affidavit is that no study of the river basin is warranted and that the guidelines of the Moef require only a study of upto 7 Kms downstream.

[Counter of R5, pages 51, 52, 88, paras 45, 46, 72.1]

The EIA report also states that the study area is only 7 Kms downstream. WAPCOS states that it has not studied the Chalakudy river basin.

[W.P. – Ext.P10, Vol. II, page 206, para 2.2]

[Counter of R7, page 15, para 27 last line]

The alleged guideline of the Moef is not produced. WAPCOS specifically states that it had not studied the river basin or any area outside the study area.

[Counter of R7 – page 15, para 27]

5.3 The CWC insisted on an integrated study of the river basin. The CEA also insisted on an integrated study of the river basin.

[I.A.No.10208 of 2009 - Ext.P78, page 24 at 25]

[W.P. - Ext.P27 -Vol. III, page 716 at 717 clause 3(iii)]

5.4 The clearance of the Moef of 15-11-2006, was subject to production of a downstream study. Within 1 ½ months i.e. on 4-1-2007, such a study report was submitted, obviously without conducting any study. Even going by the additional documents produced no official of WAPCOS had visited the project area after May 2002. How was a study report in respect of an impact outside the project area prepared, when no study was ever conducted downstream of 7 kms.?

[W.P. – Ext.P13(6), Vol. III, Page 633]

[W.P. – Ext.P16, Vol.III, page 644]

[I.A.9238 of 2008 - Ext.5(az), page 64]

5.5 On facts, which are admitted it is evident that no integrated study of the Chalakudy river was conducted, though the Moef, the CWC and the CEA had insisted on such a study. A small segment of the river basin, i.e. a 7 Kms stretch was allegedly studied. The authorities,

ignoring the fact that no study as required by them had been conducted granted clearance to the project.

DPR of 1999 and 2003.

5.6 The alleged study of WAPCOS was conducted in 2002. At the relevant time the project was to be implemented on the basis of a DPR of 1999. The said DPR was based on exaggerated water availability assumed to be 1269 Mm<sup>3</sup>. The projected firm energy was 384 MU.

[W.P. - Ext.P10 - Vol. III, page 229 & 233]

Subsequently, the project has been considerably downsized on the basis of reduced water availability projections assumed to be 1169 Mm<sup>3</sup>. The present DPR of 2003 projects firm energy of only 233 MU.

[W.P. - Ext.P10 - Vol. II, page 534]

The DPR of 2003 has not been studied and is not available in the public domain. It is not produced before this Hon'ble Court also. In other words, clearance is granted on the basis of an alleged study of a DPR that is not intended to be implemented. The DPR that is to be implemented has not been studied at all.

[Reply – Page 23, para 44]

5.7 It may not be noted that the principal variable in the case is water availability. When the details regarding the projected water availability changes, the very scope of the project changes. WAPCOS states that it has not assessed

the water availability for the project but relied on the data furnished by KSEB (as per 1999 DPR).

[Counter of R7 - Page 6, para 9]

- 5.8 The WAPCOS report, based of 1999 DRR, states that the amount of Poringal Spill is 366 Mm<sup>3</sup>. The KSEB has argued that in the 1999 DPR the full spill was reckoned and that in the 2003 DPR only 2/3<sup>rd</sup> spill is reckoned. If that be so, the spill must be 244 Mm<sup>3</sup> or less. But, the State argues that the Poringal spill is 500 Mm<sup>3</sup> and discharge from Poringal is 600 Mm<sup>3</sup>. So though the total water availability has come down drastically on account of the change in period from 1940-41 to 1995-96 in the 1999 DPR to 1970-71 to 2001-02 in the 2003 DPR the quantity of spill has been increased manifold to exaggerate the water availability and justify the project.

[W.P. - Ext.P10 - Vol. II, page 229]

[Counter of State - page 13, 16, para (e) 1, 2]

- 5.9 An argument is sought to be raised on the last day of hearing that the project is designed in such a way that during the summer months the main power house will operate at 40 MW capacity only. There is no pleading in this regard. The WAPCOS report and the counter of the State clearly state that in the summer months the ` 160 MW power house will work at full load for 1-2 hours. No project proposal for operating the main power house at reduced capacity was mooted before the CEA or the Moef .



[W.P. - Ext.P10 - Vol. II, Page 233, 384]

[Counter of State - Page 14, Para (3) 2]

**VI. EIA report – WAPCOS did not visit or study.**

6.1 The Petitioner states and specifies the offices that should have been visited by WAPCOS for conducting an EIA study. The petitioner asserts that WAPCOS has not visited any of those offices.

[W.P. – Vol. I, pages 17, 18 & 19. paras 24, 25 and 26]

6.2 The response of WAPCOS to an RTI application is that they had visited four specified offices.

[W.P. – Ext.P22(3), Vol.III, page 680]

However, WAPCOS did not visit any of these offices.

[W.P. – Ext.P18(a), P19(a), P-21(a), Vol.III, pages 669, 671, 676 and 677]

6.3 Even now KSEB and WAPCOS state that WAPCOS had visited all the offices.

[Counter of R5 – Page 51, 52, paras 44, 45]

[Counter of R7 – Page 2, paras 4, 5]

6.4 One of the offices that WAPCOS is alleged to be visited is the Agricultural Office at Vettilapara. The records produced by the KSEB establish that there was no visit at all. Some information, mostly irrelevant was gathered by post.

[Counter of R5 – Ext.R5(ac), page 265.]

Similarly, some mostly irrelevant information was collected from the Athirappilly Grama Panchayat.

[Counter of R5 – Ext.R5(ad)3, page 264]

- 6.5 The conclusion is inevitable that the officials of WAPCOS had not visited the project area at all. In spite of the specific challenge raised by the Petitioner with supporting material the details of alleged visits is not forthcoming. In fact, WAPCOS had responded to an RTI application in this regard stating that “*details regarding particular dates are not available.....*”

[W.P. – Ext.P22, Vol.III, page 678]

The ERRC connection:

- 6.6. The KSEB claims that permission was issued to WAPCOS to conduct survey work in the forest areas.

[Counter of R5 – Ext.R5(af), page 269]

A permission does not ipso facto mean that any survey or visit actually took place. The forest department has clearly stated that WAPCOS officials have not visited the forest areas. The forest department is unaware of any study. No study team can enter the forest area without the escort of the forest department.

[W.P. – Ext.P20, Vol. III, page 672]

WAPCOS states “*ERRC experts were mainly involved in ecological survey*”.

[W.P. – Ext.P22, Vol. III, page 678]

ERRC experts had no permission to enter the forest areas going by the terms of the permission issued by the forest department. The forest department states that ERRC officials did not contact it or conduct any study in the forest area during 2002.

(I.A.No. 11630 of 2008 - Ext.P72, page 3]

The details of the visits by the ERRC officials are also not forthcoming. It may also be pointed out the agreement between the KSEB and WAPCOS bars the sub-contract of the work to any other agency. No written permission for involvement of the ERRC exists.

[I.A.No.10208 of 2009 - Ext.P74, page 5 at 6 - clause 6]

[I.A.No.10208 of 2009 - Ext.P75, page 12 at 13- clause 6]

- 6.7 WAPCOS attempted to develop a case that its original proposal itself indicated its association with ERRC for conduct of the EIA study. The ERRC is described by WAPCOS as a sub-contractor and in the very same page it is asserted that there was no sub-contract of the work to ERRC.

[I.A.9305 of 2009 - Ext.P80, page 4]

WAPCOS, after stating that its original proposal making reference to its association with ERRC stated that the original proposal is not available.

[I.A. 9305 of 2009 - Ext.P81, page 5]

[I.A.9305 of 2009 - Ext.P82, page 6]

6.8 The Additional counter-affidavit of WAPCOS states that its officials had conducted a detailed study. The documents produced, at best show that the officials of WAPCOS had spent 47 and 43.15 hours at the non-existent Kanankuzhy IB of the KSEB in April and May 2002. The Petitioner has produced documents to show the exact time spent by the officials of WAPCOS and ERRC at the IB of KSEB during 2002.

[Addl. Counter of R7 – Ext.R7(g)-8 and Ext.R7(i)-6 at page 10 and 22]

[I.A.11630 of 2008 - Ext.P73, page 5]

No Record of data collection:

6.9 Any scientific study would maintain details of sampling, sightings with dates and details. A log book and record of collection of data will be available. Neither KSEB nor WAPCOS are in possession of any such record. The agreement between the KSEB and WAPCOS provides that the data collection will be recorded and will be the property of the KSEB.

[I.A.No. 10208 of 2009 - Ext.P74, 75, page 5 at 8 - clause 14 & 16 & page 1 at 15, 16 - clause 14, 16]

6.10 The following conclusions can be drawn from the above.

- (i) WAPCOS experts have not visited the project area. At best, two fleeting visits had been made over the one year study period i.e. in April and May, 2002. No record of the alleged visit of ERRC officials is produced.
- (ii) WAPCOS experts have not gathered relevant data from the concerned government offices/ departments. No record of data collection is produced or even asserted to be available.
- (iii) The entire government machinery in the area is completely unaware of any study for the simple reason that there was no study at all.
- (iv) WAPCOS was engaged to secure a clearance, not to conduct a proper study or to ascertain if the adverse environment impacts of the project are acceptable.

## **VII. EIA report – Other fabrications & errors.**

### Water sampling.

- 7.1 The physio-chemical characteristics of river water in a study allegedly conducted by WAPCOS in 2002 and the study of TBGRI conducted in 1996 establishes that WAPCOS has fabricated the entire data in this regard. The readings are the same!

[W.P. – Ext.P4(23), Vol.I, page 121]

[W.P. – Ext.P10(135), Vol. III, page 304]

Muck disposal.

- 7.2 In the matter of muck disposal, the EIA report refers to Himalayan Soil etc... It is clear case of cut and paste from some other report.

[W.P. – Ext.P10(243), Vol. III, page 41]

Cut and Paste.

- 7.3 The counter-affidavit of WAPCOS filed is by itself sufficient to establish its expertise in “cut and paste” jobs. Paragraphs 10, 11, 12, 13, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29 and 30 of the counter-affidavit of WAPCOS are cut and paste from the counter-affidavit of the KSEB. Some paragraphs from the EIA report are also verbatim reproduced in the counter-affidavit. These aspects are pointed by the petitioner in the reply-affidavit to the counter-affidavit of respondent No.7.

- 7.4. The dividing line between the project proponent and the ‘independent’ consultant engaged to conduct an EIA study is obliterated.

Details of river basin.

- 7.5 Even the basic details are wrongly stated. The length of the river basin is given as 96 kms. and catchment area as 1390 sq. kms. in the WAPCOS report. The actual length of the river is 144 kms. and catchment area is 1704 sq. km.

[W.P. – Page 21, para 31]

In fact the WAPCOS report contradicts itself by giving the details of the catchment area as 1016 sq. kms.

[W.P. – Ext.P10(58 & 59), Vol. III, Page 227, 228]

The period of the North-east Monsoon is wrongly stated.

[W.P. – Ext.P14(54). Vol. II, page 223]

#### Tribal Settlements.

- 7.6 The Vazhachal Settlement of the Kadars (65 houses and total population of 240 Kadars) is completely ignored in the WAPCOS report. Mention is made only of 70 Kadars. The distance from Vazhachal to the project area is stated to be 5 kms.

[W.P. – Ext.P10(271, 772), Vol. III, page 440, 441]

The Petitioner has clearly stated that both settlement of Kadars will be adversely affected. The entire community will be displaced.

[W.P. – Para 35A at page 23A]

The petitioner had made a complaint in this regard. The Tribal Rehabilitation Commissioner had found as a fact that the distances mentioned in the WAPCOS report are incorrect and that the Kadars of the Vazhachal Settlement will be adversely affected.

[W.P. – Ext.P23, Vol.III, page 694, 695, 696, 697]

The petitioner had raised this matter at the public hearing also.

[W.P. – Ext.P11(25), Vol. III, page 560]

### **VIII. Public hearing – Flaws in the process:**

#### Opposed by the public 9:1

8.1 At the public hearing held on 15-6-2006, 1200 members of the public attended to oppose the project. The report of the hearing panel states that 650 people attended the hearing.

[W.P. – Ext.P11(2), Vol. III, page 536]

The panel admits that the project was opposed by the public in the ratio 9:1.

[W.P. – Ext,P11(4), Vol. III, page 538]

Verbal statements of 63 persons alone could be recorded. All of them opposed the project.

[W.P. – Ext.P11(25 to 36), Vol. III, page 560 to 571]

The only supporters for the project are KSEB officials and some persons set up by them from outside the project area.

[W.P. – Ext.P11 (37, 38, 43), pages 572, 573, 584]

The list of persons and organizations opposed to the project is very large. A large number of scientists and NGOs are among the objectors.

[W.P. – Ext.P11 (39 to 48 & 50), pages 574 to 583 & 585]



8.2 A meeting of the hearing panel was held on 8-7-2006 to prepare a report. The meeting was inconclusive and there was no consensus among the panelists. Without convening another meeting the report was dispatched on 19-7-2006 with 3 dissents.

Different last pages for report.

8.3 A perusal of the report of the public panel is by itself sufficient to discard it. There are different last pages (signature pages). The true purport of the report itself was not revealed to the members of the panel.

[W.P. – Vol. I, page 35, 36, para 60, 61]

8.4 The observations of the panel also indicate that the stand of the KSEB was being passed of in the report of the panel. There was no meeting of the panel with the KSEB after the public hearing. The circumstances under which the stand of the KSEB was incorporated as the view of the panel is not clear. The report does not correctly reflect the proceedings or the extent of the objections to the project. The report was forwarded by the Pollution Control Board.

[Counter of R5 – Ext.R5(x-3), page 231]

Non traverse of allegations.

8.5 The Pollution Control Board has not filed any counter-affidavit to controvert the specific allegations regarding the hearing or the manner in which the report was prepared and forwarded. The KSEB is also silent on these allegations.

## **IX. Clearance Process:**

### River Valley Committee.

9.1 The KSEB could not meet the concerns raised at the public hearing. In fact the expert committee for river valley and hydro-electric projects has recorded this fact.

[Counter of R5 – Ext.R5(x-4), page 233]

9.2 The KSEB purported to file a fresh application for clearance on 6-11-2006 and this was considered at the meeting of the river valley committee on 15-11-2006. The committee did a volte face and recommended clearance subject to “*production of a study of baseline environmental parameters of 7 kms. length below the confluence of tail race channel and the river with reference to soil, water and aquatic and territorial ecosystem*”. A clearance of this nature is meaningless. Since no study was ever conducted on these aspects it was impossible to submit a study of this nature.

[W.P. – Ext.P13(6), Vol.III, page 628 at 633]

### Site visit of Sub Group.

9.3 The expert committee did another volte-face and superseded the earlier clearance. A site visit of a sub-group was ordered.

[W.P. – Ext.P14(2), Vol. III, page 637 at 638]

9.4 The sub-group conducted site visit on 11-4-2007 to 13-4-2007. Its report does not even refer to the environment. The Sub Committee made no effort to ascertain if the base line data in the WAPCOS report is correct.

[W.P. – Ext.P15, Vol. III, pages 640 to 643]

River Valley Committee again.

9.5 The expert committee proceeded as though its order of 15-11-2006 was in force. A report on downstream impacts put in by WAPCOS on 4-1-2007 was referred to and clearance was recommended after recording the stand of the KSEB.

[W.P. – Ext.P16, Vol. III, page 644 to 658]

9.6 The Moef purported to grant clearance to the project subject to certain conditions.

[W.P. – Ext.P17, Vol. III, page 661]

9.7 The Sub-group has not considered any issue relating to the environment. The expert committee has merely recorded the stand of the KSEB. The Moef, in its clearance, has not considered any of the aspects but merely relied on the clearance of the expert committee. There is total non-application of mind throughout the clearance process. As already stated, the Moef has not filed any affidavit or statement in the case denying the allegations of non application of mind and non consideration of relevant matters.

**X. Bio-diversity issues – Adverse impact of dams:**

10.1 Dams have an adverse impact on biodiversity. The world over dams are being decommissioned. The fragmentation of the flow of the rivers and consequent fragmentation of the habitats is detrimental to the biodiversity of the area. The relevant aspect in this case is the cumulative impact on account of the construction of a 7<sup>th</sup> dam within a stretch of 70 kms.

[Reply – Page 2, 3, Para 4]

10.2 The Biodiversity impacts have been assessed by the IUCN for the world commission on dams. The adverse impact on various species has been studied.

[Reply – Ext.P52, 53, 54, Pages 62, 63 to 67 and 68 to 71]

10.3 The cumulative impact of the proposed project on the river has not been studied at all. As integrated study of the basin was required by the Moef, CWC and CEA , but never conducted.

**XI. Biodiversity Issues – Birds:**

11.1 The Athirappilly-Vazhachal area has 264 species of birds as per authentic studies.

[W.P. – Para 41, 42, 43, page 27, 28]

[W.P. – Ext.P30, 31, 32, 33, 34, 35, Vol.IV, pages 745 to 789, 790 to 794, 795 to 800, 801 to 804, 805 to 806, 807 to 809]

11.2 The State Bird of Kerala, the great Indian hornbill is found in the project area. The project area is the most important breeding area for the hornbills. Also, the area is unique as all the four species of the hornbill, found in the western ghats, are found here. There is no other place where all four species are found together. In fact, the forest department is carrying out a community conservation project in this area. The Malabar pied hornbill is also a globally threatened species.

[W.P. – Ext.P36, Vol. IV, page 810 to 835]

11.3 WAPCOS has downsized the impact by proceeding as though only 98 species of birds are found in the project area.

[W.P. – Ext.P10, Vol. II (118 to 121), pages 287 to 290]

## **XII. Bio-diversity Issues – Mammals:**

12.1 A number of mammals found in the red list of the IUCN are found in the project area.

[W.P. – Ext.P37 series, Vol. IV, page 836 to 842]

12.2 WAPCOS has simply stated that mammals are “*comparatively less abundant in the project area*”. This observation is made without any basis. Even the IUCN

status of the mammals that were sighted is not given. They merely state that one-half of the species are “*threatened*”.

[W.P. – Ext.P10 (123 & 124), Vol.II, page 293 and 294]

12.3 A large number of species included in Schedule I of the Wild Life Protection Act, 1972 are found in the project area. The petitioner has given an illustrative list.

[Reply – Pages 5, 6, para 9]

### **XIII. Biodiversity Issues – Elephant migratory path:**

13.1 The project area falls within project elephant, i.e. Anamudi Elephant Reserve No.9. The migration of the elephants across the Chalakudy river is inevitable. The existing migratory paths have been lost on account of the existing dams. Only one corridor remains and that too through the project area. If the project is implemented the only migratory path will be lost. The density of elephant population in the area is the second highest in the State. Even the expert relied on by the KSEB, Prof. Raman Sukumar has recommended that the status of the Vazhachal division must be upgraded to a wildlife sanctuary/national park.

[W.P. – page 30, 31, paras 49 to 50]

[W.P. – Ext.P38, 39(2) and 40, Vol. IV, page 843 to 845, 846 at 847, 848]

13.2 According to the MoEF the main threat to the elephant population of Elephant Reserve No.9 is the habitat fragmentation account of the network of reservoirs and dams. The conservative strategy includes ensuring secure corridors for migration of the elephants.

[W.P. – Ext.P41(14 & 15), Vol. IV, page 861, 862]

[W.P. – Ext.P42, Vol. IV, pages 865-881]

13.3 WAPCOS has made contradictory statements in this regard. At one place of the report it is stated that there is no established elephant corridor or migratory route of elephants intersecting the project area.

[W.P. – Ext.P10(128), Vol. II, page 297]

But, at another place it is stated the dam site lies in the migratory route of elephants. A map is also given.

[W.P. – Ext.P10(191, 192 & 229), Vol. II, pages 360, 361 & 398]

13.4 The stand of the KSEB that elephants can swim across the reservoirs even if their migratory path is lost is unsustainable.

#### **XIV. Bio-diversity Issues – Fishes:**

14.1 The Chalakudy river basin has exceptional and unique fish diversity. 104 species have been recorded, which is the highest density among the river of Kerala and one of the richest in India in terms of species abundance. The density and richness is found in the altitudinal range of

the project site is very high at 3.28. The range for the river is 1.76 to 3.9. The National Bureau of Fish Genetic Resources (NBFR) has recommended upstream areas of the Chalakudy river to be declared as a fish sanctuary. CUSAT has found that 104 out of the 175 fresh water species reported from the Kerala part of the western ghats is found in the Chalakudy river.

[W.P. – pages 31 and 32, paras 51 to 54].

[W.P. – Ext.P43, 44, 45, Vol. IV, pages 883, 884 to 886, 887, 889, 890 to 892]

[Reply – Ext.P60, pages 91 to 93]

14.2 The IUCN has observed that the biggest victim of the damming of rivers is the fresh water fish species. Such a conclusion is also reached in respect of studies of the Chalakudy river.

[Reply – Ext.P51, page 34 at 42, 43, 47 to 54, 58 to 61]

[Reply to R7 – Ext.P65, page 82]

14.3 There are at least 9 critically endangered species in the Chalakudy river. Critically endangered species restricted to a single location are also found here.

[W.P. – Ext.P43(2), Vol. IV, page 883]

[W.P. – Ext.P45, Vol. IV, page 887 at 894]

14.4 A single endangered species, the ‘Snail Darter’ persuaded the U.S. Supreme Court to stop the Tellico dam.

[TVA v. Hill 437US153 – 57 Led 2d 117]



14.4 WAPCOS downsized the impact by proceeding as though only 30 fish species are found in the river. The IUCN status of the species was not revealed.

[W.P. – Ext.P10, Vol. II, pages 316, 317, 322, 394, 395]

The KSEB has merely reiterated this.

[Counter of R5 – Pages 84 to 86, Para 70]

## **XV. Bio-diversity Issues – Water-fall:**

15.1 Dams lead to extinction of water falls. The Poringalkuthu HEP led to the extinction of a 540 ft. water fall.

[Reply – Ext.P59, pages 88 to 90]

Even WAPCOS has admitted the existence of the Poringal falls.

[W.P. - Ext.P10 - Vol. II, page 227 last 3 lines]

15.1 The construction of a dam destroyed the Jog falls.

[Reply – Ext.P58, pages 86 and 87]

[Reply – Ext.P55, 56, pages 72 to 75]

The extinction of the Jog falls has led to the extinction of grass species according to IUCN.

[Reply – Ext.P57, page 76]

15.3 The Athirappilly falls with a height of 45 m. is the second highest water fall in South India. It is a bounty of nature and has to be preserved as such on principles of inter-

generation equity and public trust doctrine. Both these principles are part of the law of the land.

**XVI. Bio-diversity Issues – Riparian Vegetation:**

16.1 The project area has the most extensive low-elevation riparian forest eco system in the State.

[W.P. – Ext.P46(4), Vol.IV, page 910]

16.2 The Kerala State Biodiversity Board has also certified the uniqueness of the high biodiversity value of the area with long term conservation value.

[Counter of R6 – Ext.R6(a), 6 to 8, page 11, 72, 73]

16.3 The KSEB says in its counter affidavit that the project has “*fairly good biodiversity*” which is not going to be affected and important habitats for flora and fauna, which has been studied. The KSEB also admits that the area is declared as a biodiversity hotspot by the IUCN.

[Counter of R5 – page 88,89 to 101, para 73, 73 & 79]

**XVII. EIA notification – Violations:**

17.1 A river valley project, including hydel power projects require mandatory clearance. Such projects are included as Item No.2 in Schedule I of the EIA notification, 1994.

[W.P. – Ext.P7(3), Vol. I, page 139 at 141]

17.2 The KSEB application ought to have been summarily rejected under clause 2 1(b).

[W.P. – Ext.P7, Vol. I, page 139]

17.3 Clause 4 of the notification specifically provides that “*concealing factual data or submission of false, misleading data/reports, decisions or recommendations would lead to the project being rejected.*” The EIA report in the present case ought to have been rejected by the Moef. The clearance is granted without even considering the objections to the study or verifying the reliability of the EIA report.

[W.P. – Ext.P7(3), Vol.I, page 139 and 141]

17.4 Compliance with the EIA notification is mandatory.

[AIR. 2004 S.C. 4016, paras 8, 77, 91]

17.5 The concept of segmentation is most relevant to the case. The cumulative impact of the proposed project in the light of the pre-existing 6 dams ought to have been studied. The Moef did not insist on such a study though an integrated study of the river basin had been called for by it earlier. It merely required a study of down stream impacts and accepted at face value the report of WAPCOS in this regard. The precautionary principle, public trust and principle of inter-generation equity have not been applied.

17.6 The WAPCOS report of 4-1-2007 on downstream impacts is not published. No public hearing has been conducted

thereon. This is a clear violation of the scoping mechanism in the EIA notification.

17.7 The Moef has ignored the opposition of the public. There is non-application of mind.

17.8 The Moef has ignored the fact that the KSEB has never had an intention to observe the requirements of the EIA notification. The decisions rendered by this Hon'ble Court establish this fact.

17.9 The decision of the Moef is passed on an application of the KSEB dated 6-11-2006. It was not an application pending on the date of coming into force of the EIA notification, 2006. Hence the application filed to satisfy the requirements of the EIA notification, 1994 is not maintainable. The transitory provisions found in Clause 12 of the EIA notification, 2006 have no application to the case on hand.

[W.P. – Ext.P12(9), Vol.III, page 586 at 594]

17.10 The Moef has the power to revoke approvals. No right is conferred on affected parties to apply for revocation. The grounds for revocation are limited and not extensive as the grounds for rejection. The exercise of the power is clearly discretionary. No duty to revoke is cast on the authority. Petitioner is entitled to challenge the review and she cannot be relegated to move the Moef in these circumstances. In any event, the existence of a power of

review is no ground to decline jurisdiction under Article 226 of the Constitution of India.

[A.I.R. 1982 S.C. 82.]

### **XVIII. Principles of Environment Law – Non-application;**

The precautionary principle insists that the onus of proof to establish that the proposed project is environmentally benign is on the project proponent. When there are serious threats, the project must be dropped. The principles enable a project to be scrapped on a reasonable suspicion. It also provides that the court/authority can err on the side of caution. The Supreme Court has held this principle to be part of the law of the land.

[(1996)5 S.C.C. 647 at page 658, paras 10 to 14]

[(1997)2 S.C.C. 353]

[(2006)6 S.C.C. 371 at 386 & 389, para 77 to 79 & 82]

[2009(2) K.L.T. 272, para 6]

18.2 The public trust doctrine and doctrine of inter-generation equity have to be applied to preserve the water-fall and the unique biodiversity of the area for humanity. These principles are also declared to be part of the law of land.

[(1997)1 S.C. 388 at 413, para 35]

[(2006)6 S.C.C. 371 at 388 & 389, paras 83 to 89]

18.3 The KSEB admits the seriousness of the environment concerns but says that it cannot be burdened with the responsibility of conserving the biodiversity and the

environment for the nation and humanity. It seeks compensation for conservation!

[Counter of R5 – Page 128, para (o)]

18.4 This is a case where very limited economic benefits are likely to accrue at great cost to the environment.

**XIX. Downstream impacts:**

19.1 The project will adversely impact the drinking water schemes in the Panchayats downstream of the project. As many 26 Grama Panchayats and 2 Municipalities will be adversely affected.

[W.P. – Pages 24, 25, Para 36 to 38]

[W.P. – Ext.P28, Vol. III, page 728]

19.2 Numerous lift irrigation projects will be adversely affected.

[W.P. – page 25 & 34, Para 38 and 58]

[W.P. – Ext.P49, Vol. IV, page 930]

The contention of the KSEB and the State is that there is no captive consumption of water and that there will no reduction in the quantity of water reaching the irrigation weir.

[Counter of R5 – page 53, 54, paras 47.1 & 47.2]

[Counter of State – page 11, 12, 13, para 10(d)]

WAPCOS has got over these difficulties by stating that total area under agriculture is only 49.35 Hectares, there

are only 2 lift irrigation schemes and that total agricultural income is only Rs.2,20,000/-. The matter is trivialized in this manner.

[W.P- Pages 24 and 25, paras 36,37& 38]

[W.P- Ext P10, Vol III, pages 240 & 241]

19.3 There will be drastic and daily fluctuation in the water flow and flow rate depending on the operation of the main power house. In fact, there will be dry spells and floods every day. The irrigation projects will be rendered useless. The argument of the KSEB that the net quantity of water that may reach the weir of the Chalakudy River Diversion Scheme will remain the same hides the real issue.

[Reply – page 18, 19, paras 36 & 37]

The weir of the Chalakudy River Diversion Scheme has a height of 3.66 metres and an intake capacity of 25.5m<sup>3</sup>/sec only. When the main power house functions it is admitted that the flow rate will be 125 m<sup>3</sup>/s for one or two hours in a day. If that be so, the bulk of the water will spill over the weir of the diversion scheme. Consequently, this water will be lost to irrigation.

[W.P. - Ext.P10 - Vol. II, page 384].

[Counter of R5 - Page 93, Para 74.5]

Thus, according to the KSEB the flow rate for 20-22 hours a day will be 7.65 m<sup>3</sup>/s which is grossly insufficient for irrigation and for 1-2 hours at 125 m<sup>3</sup>/s. The weir of

the Chalakudy River Diversion Scheme can hold or divert only a small quantity of water into its left and right banks. The bulk of the water which will flow during peaking operations between 7 and 11 P.M. will spill over the weir and be lost to irrigation. In fact, as early as in 1998 S.N.V. Lavlin, the consultant appointed by the state and the KSEB, has referred to this fact and concluded that a new dam will have to be built downstream.

[I.A. 12580 of 2009 - Ext.P84, pages 62, 63]

The quantity of 125m<sup>3</sup>/s every day for a short period is far in excess of the average water reaching the weir at the peak of monsoon as on date.

[W.P. - Ext.P10 - Vol. II, page 232, 384]

## **XX. Forest land rights and tribal issues:**

### Forest clearance and conditionalities:

20.1 The project involves the diversion of 138.6 hectares of reserve forest land. A clearance in that regard is issued subject to the condition that two times that extent will be put to compensatory afforestation as part of the project cost. The KSEB has remitted Rs.1.14 crores for this purpose.

[Counter of State – page 5, para 7]

[Counter of R5 – Ext.R5(m), Ext.R5(m)2, page 156, 157]

20.2 The area of 279.2 hectares has not been identified till date. Such an extent of land, as per guidelines, has to be



in the same river basin. No such area exists. Moreover, the NPV has to be remitted terms of the directions of the Hon'ble Supreme Court and the Central Empowered Committee. The meagre deposit by the KSEB is grossly insufficient. In the absence of land, the condition in this regard is certain to be violated.

20.3 The clearance specifically provides that no tribal families should be displaced due to the project. But reference is made only to 18 tribal families. The Vazhachal settlement of 65 tribal families is ignored.

[W.P. – Ext.P17(4), Vol. III, page 664]

[Reply – Page 21, para 41]

However, the KSEB, WAPCOS and the Government say that an R & R plan is notified for these families. Hence, the displacement is an admitted eventuality.

[W.P. – Ext.P10 (280 to 291), Vol.II, pages 455 to 460]

[Counter of State – page 14 & 15, para 10(f)]

The land and funds have not been identified thus far.

FRA & its impact.

20.4 The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 has been notified on 1-1-2008. The Kadar Community is a primitive tribal group, which satisfies the definition of 'forest dwelling scheduled tribes' under Section 2 (c) of the Act. The project area falls within their habitat as

understood in Section 2(h) of the Act. They are entitled to the rights conferred on them under Section 3 of the Act particularly Section 3(1)(c), (d), (e), (f), (k) and (m) of the Act. The extent of their vested rights has to be determined in terms of the Act and the Rules framed thereunder. Section 4(5) of the Act bars eviction until the rights are recognized and verified. The implementation of the project will violate Section 4(5) of the Act and snatch away the rights vested in the Kadar Community by the Act.

**XXI. Res-judicata.**

21. The KSEB argues that this Hon'ble Court in the first round of litigation has held that the challenge on the ground that the project is not viable etc.. has been repelled.

[W.P. - Vol. I - Ext.P3, page 62 at 93, 94]

21.2 The decision of this Hon'ble Court was rendered in an entirely different fact situation. The water availability was thus thought to be 1269Mm<sup>3</sup> and the firm energy as 384 Mu. The arguments on water availability, not considered by this Hon'ble Court, was later accepted by the CWC. The water availability is since revised to 1169 Mm<sup>3</sup> and the firm energy downsized to 233 Mu. The cost benefit analysis is sought to be made on a set of data and facts that was not considered by this Hon'ble Court

earlier. The principles of res-judicata cannot be applied when the facts pleaded are different.

[W.P. - Vol.II - Ext.P10, pages 229, 534]

21.3 The KSEB argues that in the second round of litigation this Hon'ble Court has said that it is not competent to consider the arguments on ecological impacts. This is not a bar to consider arguments on adverse ecological impacts in a later round of litigation. This Hon'ble Court has specifically stated that the merits of the case on ecological impacts is not being considered and the case itself is being disposed of on the preliminary point of non-compliance with the amended EIA notification.

[W.P. - Vol. I - Ext.P9, page 154 at 166]

21.4 A perusal of the judgments rendered by this Hon'ble Court on both occasions reveal that the Environment Clearance was quashed on a preliminary point and the matter was being remanded for fresh decision. The material relating to adverse environment impacts and aspects relating to the viability of the project were not considered on merits and adjudicated upon. The WAPCOS report, which is the basic document relating to the ecological aspects itself was not before this Hon'ble Court. The principles of res-judicata cannot be stretched in this manner to stultify a public law remedy invoked in

public interest. When there is over-riding public interest the principles of res-judicata will not apply.

[W.P. - Vol. I -Ext.P9, page 154 at 163]

[(2001)10 S.C.C. page 305, para 17 to 20]

21.5 The clearances were interfered with by this Hon'ble Court on both occasions. A finding, when the ultimate decision is in favour of the Petitioner, cannot operate as res-judicata. Moreover, the Petitioner herein was not a party to the first round of litigation.

[A.I.R. 1922 P.C. 213]

[A.I.R. 1974 S.C. 1126, para 25]

## **XXII - The real motive.**

22.1 A comparison of the proposed project with the Poringal dam will evidence that there is no justification for its construction. The efficiency will be so low that it will merely serve to devastate the environment and in the process generate little or no electricity. The Athirappilly H.E.P. will have three times the installed capacity and will have to operate with a third of the water available to the Poringal Power House. It is to be noted that the proposed project has a very limited storage facility and can at best be operated in synchronization with the Poringal HEP. The proposed project has almost the same head as the Poringal HEP and is designed as a tail race project but it has an abnormal installed capacity. The following is a comparative table:

Comparative Table

	Poringal Project	Athirappilly HEP.
Installed Capacity.	48 MW	163 MW
Firm energy	230 MU	233 MU
Head	170 m	160 m
Storage	33 mm <sup>3</sup>	8.44 mm <sup>3</sup>
Dam height	26 m	23 m
Efficiency*	60%	16 %

\* 1 MW = 8.76 MU/annum.

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[Reply-affidavit – page 7, para 11]

163 MW for 24 hours on 365 days will produce 1428 MU. Since the firm energy is only 233MU the efficiency is only 16%. If the loss of 60MU on account of Edamalar diversion is reckoned then the net production would be 173 MU and efficiency will be 12%.

22.2 The Cabinet has not taken a decision to implement the project. The views of the Forest Department and Irrigation Department have not been ascertained before finalizing the counter-affidavit of the State.

[Reply-affdiavit to counter of State - Exts.P67, 68 - pages 4, 5]

Even at the meeting of Ministers the Forest Department is kept out.

[Counter of State - Ext/R5(c) - page 28]

However, the Forest Department, Animal Husbandry Department and Environment Ministry of the State Government have joined in the recommendation of the Bio-diversity Board to object to the project.

[Counter of Respondent No.6 - Ext.R6(a) - page 6]

The stand of the power department and K.S.E.B. cannot be passed of as a policy decision of the Government. The power department and the K.S.E.B. are able to get their voice heard whereas the voice of the other departments of the Government is suppressed. The views of these departments are characterized as views of the officials and not of the department.

[Counter of State - pages 24, 25]

22.3 The real reason for this situation is that the same officials of the power department and KSEB have a corrupt motive. The role of the contractor chosen by the KSEB for executing the civil works, M/s/ HCC is relevant in this context.

22.4 An analysis of the cost of the project is sufficient to establish that the KSEB and its officials have a corrupt motive.

**January 1998** - SNC Lavlin estimates the project cost at Rs.675 crores.

[ I.A. 12580/09 - Ext.P84, page 62, 45 to 51]

**15-04-1998** -The estimate of the Government was also that the project would cost Rs.650 crores.

[W.P. - Ext.P3 - page 71]

**06-01-2001** -The Project is awarded to HCC-BHEL consortium for Rs.414.22 crores.

**28-03-2005** - The Summary of records of the CEA. reveal that the KSEB suggests a project cost of Rs.399.31 crores but the CEA limits the project cost to Rs.359.51 crores. The cost of civil works is fixed at Rs.173.73 crores and Electro mechanical works at Rs.185.78 crores at 2004-05 rates.

[Annexure-A in I.A.87/08 in W.A.No.197/08 - pages 628, 629, 630]

**31-03-2005** - A Clearance is granted by the CEA fixing the cost at Rs.173.73 crores for civil works and Electro mechanical works at Rs.185.78 crores. The total cost including IDC + FC is fixed at Rs.385.63 crores. It is specified that the cost should not exceed the approved rate and that there cannot be increase in cost of the civil works except in specific contingencies. If the work is not started

in 3 years new clearance would be required. If conditions are violated the CEA can revoke the clearance.

[Annexure-B in I.A.87/08 in W.A.197/08 - Pages 632, 633, 634, 635, 637]

**21-04-2005** - A Modification to the summary of record insisting on keeping the tariff low is issued.

[Annexure-C in I.A.87/08 in W.A.197/08 - page 644]

**09-05-2005** -The KSEB awards the work to HCC - BHEL consortium at Rs.414.22 crores less discount of Rs.50 lacs.

[Ext.P28 in W.P. 31044 of 2007-U & W.A.197/2008 - page 241, 242].

**11-01-2006** - The KSEB decides to award the contract to HCC-BHEL consortium at Rs.570 crores on turn key basis. The cost of civil and hydro-mechanical work is fixed at Rs.375 crores and Electro-mechanical works at Rs.195 crores. This is done on the basis of a formula of WAPCOS updated upto September 2005.

[Ext.P36 in W.P.31044 of 2007-U - W.A.197/2009 - Page 263 at 284, 292].

**29-09-2007** - The KSEB cancels the award of the work by virtually a non-speaking order and proceeds to re-tender the work. This gives HCC an opportunity to file a Writ Petition.



[Ext.P55 in W.P.31044 of 2007-U -W.A.197/2008 - pages 362, 363]

**01-01-2008** - W.P.(C) No.31044 of 2007-U filed by HCC is allowed noting that the techno economic clearance is due to expire on 31-3-2008 and that no one else is in a position to start the work by then. The work is directed to be awarded to HCC-BHEL Consortium at a revised contract price as per the formula suggested by WAPCOS. The learned Single Judge notes the collusion between KSEB and HCC.

[W.P.(C) No.31044 of 2007-U - W.A.No. 197 of 2008 - Page 21 at 46, 65, 72, 73, 74, 75, 76, 77]

The only beneficiary of this exercise is HCC. The cost of civil work alone is escalated from the permissible Rs.173.73 crores to about Rs.465 crores, i.e. by 2.75 times.

[I.A. 87/2008 in W.A.No.197/2008 - pages 619, 620, 621]

On the cost aspect there is no dispute by HCC.

[Affidavit of HCC in I.A.87/2008 in W.A.No.197/2008 - pages 654 (para 10), 655 (para 11)]

The cost is stated to be only Rs.414 crores and it is asserted that no techno economic clearance is required as the bar has been raised to Rs.500 crores by amendment dated 31-8-1997.

[I.A.No.221/2008 in W.A.No.197/2008 - pages 661 (para 6), 663 (Annexure-A2)]

The cost was corrected to Rs.474.4 crores.

[I.A.No.222/2008 in W.A./No.197/2008 - page 669]

The conditions in the techno-economic clearance were not placed before the learned Single Judge. The possibility of the lapse of the clearance was projected, without producing the clearance. Now the argument is that no Techno-economic clearance is required as the estimate of the cost is less than Rs.500 crores. It is evident that the KSEB and HCC have colluded to mislead the learned Single Judge to fix a high project cost and collaterally override the conditionalities prescribed by the CEA.

[Counter of State - page 24].

22.5 The project turbines of 80 MW size, which is not used in any hydel project in Kerala except Idukki. The abnormally high installed capacity is to increase the cost of the project with corrupt motives. SNC Lavlin has recorded in 1998 itself that the KSEB accepts that the size is not optimal. SNC Lavlin also says that there are better alternatives like Poringalkuthu Phase II Plant compared to the Athirappally HEP.

[I.A.No. 12580 of 2009 - Ext.P84 - page 8, 62]

22.6 The main power house of 160 MW is to work only for 1-2 hours a day according to the State during summer. The

table of WAPCOS (when water availability were taken at 1269 Mm<sup>3</sup>) itself indicates that the Main Power House will work for only a few hours every day from September to June.

[Counter of State - page 14]

22.7 A year has 8760 hours. According to the DPR, 1999 and the WAPCOS report the 160MW main power house will work only for 2358 hours to generate 376.5Mu of energy.

[W.P. - Ext.P10 - Vol. II, page 233]

The water availability is now reckoned at 1169Mm<sup>3</sup> as per DPR, 2003. The energy generated is expected to be 224Mu from the main power house. The main power will work at best for 1400 hours out of 8760 hours i.e. 16% efficiency. In fact, for the period from January to May, when there is a peak load demand and problem, only 27MU will be generated. So the bulk of the generation, if at all, will be in the monsoon when the state is in surplus and is selling power. This 27MU generated over 6 months will not suffice to meet the demand for power of even one day in the State, which is at 40MU.

The KSEB has sold power outside the State over the last three years. Other than the Central allocation, the State has not purchased power from outside the State. The net sales (after excluding the central allocation) is as follows:

		<u>Net sales</u>
2005-06	-	635.9 Mu
2006-07	-	1046.89 Mu
2007-08	-	953 Mu estimated.

### **XXIII - Conclusion:**

23.1 The ecological cost of the project is unacceptable. The project proponent has failed to discharge the onus to prove that the project is environmentally benign. The entire clearance process is vitiated.

23.2 The advisory of the Biodiversity Board is relevant. It has asked the government to reconsider the project. The board has called the EIA report a farce. The Board also estimates that the total value of the eco-system service will exceed Rs.500 Crores/year.[Counter of R6 – Ext.R6(a), page 6 at 9]  
[Counter of R6 – Ext.R6(a), page 6 at 31, 32]

Any cost – benefit analysis would be against the implementation of the project.

Projects do not get scrapped on environmental grounds either at the stage of the EIA study by the consultant or at the stage of clearance by the Moef. Virtually every project conceived by a project proponent gets environment clearance. In this situation, the courts alone can save the country from environment degradation.

23.3 The Petitioner submits that the environmental clearance may be quashed on the larger environmental and other grounds raised.

**P.B.Krishnan.**  
**Counsel for the Petitioner**

IN THE HIGH COURT OF JUDICATURE OF KERALA  
AT ERNAKULAM.

W.P.(C) NO. 30801 OF 2007-S

Geetha --- Petitioner.  
-Versus-  
Union of India and others --- Respondents.

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**Counsel for the Petitioner.**

Presented on - 18-11-2009

IN THE HIGH COURT OF JUDICATURE OF KERALA  
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W.P.(C) NO. 30801 OF 2007-S

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**N O T E**

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M/s. JAYAKUMAR K. (J-97) &  
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