

BEFORE THE NATIONAL GREEN TRIBUNAL, NEW DELHI
PRINCIPAL BENCH

Appeal No. 21 of 2011
Tuesday, the 29th day of November, 2011

Quorum:

1. Hon'ble Justice Shri C.V. Ramulu
(Judicial Member)
2. Hon'ble Prof. R Nagendran
(Expert Member)

BETWEEN :

1. Bhalachandra Bhikaji Nalwade
At P. O. - Ganpatipule
Taluka/District - Ratnagiri
Maharashtra State

Appellant

A N D

1. Ministry of Environment & Forests
Government of India
Through the Secretary
Paryavaran Bhawan, CGO Complex
Lodhi Road, New Delhi - 110 003
2. Maharashtra Pollution Control Board
Through the Member Secretary
Kalpatru Point, 3rd& 4th Floor
SionMatunga Scheme Road No. 8
Opp. Cine Planet Cinema, Near Sion Circle
SION (EAST), MUMBAI 400 022

3. M/s JSW Energy (Ratnagiri) Limited
Ambassador Plaza, 1st Floor
Mal Naka, Ratnagiri
MAHARASHTRA - 415612

Respondents

Advocates :- Mr. Ritwick Dutta and Mr. Rahul Choudhdary Advocates for the Appellants. Smt. Neelam Rathore for the Respondent No. 1, Mr. Aftab Alam and Mr. Mukesh Verma for Respondents No. 2 and Mr. Raju Ramachandaran, Senior Advocates for Respondent No. 3 (alongwith U.A. Rana and Ms. M Majumdar, Advocates)

JUDGEMENT

1. This appeal is filed being aggrieved by the grant of Environmental Clearance (for short EC) for the 1200 mw (4x300 mw) coal based Thermal Power Plant (for short TPP) in favour of M/s JWS Energy Limited at Jaigad, Ratnagiri District, Maharashtra State, by the Ministry of Environment & Forests (for short MoEF), Government of India dated 28.6.2010.

2. It appears the Respondent No. 1 granted EC in favour of Respondent No. 3 for the establishment of a coal based thermal power plant (1200 mw) at Ganpatipule Taluka and District Ratnagiri, Maharashtra State. It is the case of the appellant that he had filed Appeal No. 7 of 2007 before the National Environment Appellant Authority, New Delhi and the said appeal was dismissed vide Order dated 12.9.2008. Aggrieved thereby, the appellant filed Writ Petition

No. 388 of 2009 before the Hon'ble High Court of Delhi and the said Writ Petition was disposed of on 18.9.2009 holding that the order passed by the Expert Appraisal Committee is appealable before the NEAA under the Appellate Act, apart from making certain observations. In pursuance of the said order, the present appeal is filed. It is the bone of contention of the appellant that the Expert Assessment Committee (for short EAC) had not followed the directions of the High Court such as considering the Dr. Bala Saheb Sawant Konkan Krishi Vidyapeeth Daboli (for short KKVD) Report apart from other contentions and allegations. In fact, the KKVD report was never made available to the EAC while considering the grant of EC. Therefore, the entire process of grant of EC in favour of the respondent No. 3 is vitiated and as such the same is liable to be set aside.

3. The respondents No. 1 to 3 filed their detailed counter denying the allegations made by the appellant and further stated that the first respondent has not committed any error or illegality in granting the EC in favour of the third respondent for the establishment of thermal power project at Jaigad, Ratnagiri District in Maharashtra State. The grounds raised in the appeal are all frivolous and the appeal is liable to be dismissed with costs.


4. The Learned counsel for the appellant strenuously contended that the EAC has not properly addressed the aspects enunciated by the High Court in its Judgment. In fact, the High Court of Delhi had

directed the Respondent No. 1 particularly the EAC to reconsider the approval granted for the project by taking into account the KKVD report etc. The approval granted for the project is not in accordance with the Judgment of the High Court and is also not in accordance with the Precautionary Principle as well as the principle of Sustainable Development. The EAC of the Ministry of Environment and Forests has chosen to recommend the project for approval based on one sided information provided by the project proponent as well as other agencies and chose not to interact with any of the farmers despite the fact that re-examination of the project was done based on the petition filed by the affected farmers and Ratnagiri Jinda Jagruk Manch. The sub-group report which became the basis for approval of EAC suffers from serious deficiencies and shortcomings being based on wrong assumptions. According to the learned counsel for the appellant, the full impact and effects of the TPP on the Alphanso Mango plantations and ecosystems of the area has not been fully studied and no study was conducted on the mangos *per se* by the KKVD. The secondary studies relied on by EAC were not done on mangoes by the KKVD. No study on flowering stage of mangoes was done. The impact due to generation of sulphur dioxide as well as the resultant acid rain (blended with rain and dew) has not been taken into account. Sensitivity of mango to sulphur dioxide has not been considered. No study on carrying capacity of the area was done. The EAC has wrongly concluded that there are no studies on impact of thermal power plant and thermo dynamic efficiency of TPP was not discussed

in the EIA or by EAC in its report. Therefore, the EC granted in favour of respondent No. 3 is arbitrary and illegal and liable to be set aside.

5. The learned counsel appearing for the respondents have reiterated their stand as is taken in their respective replies and counters.

6. We have given our earnest consideration to the respective submissions made by the learned counsel on either side and perused the material made available on record. The following points arise for consideration in this appeal:

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- i) *Whether the KKVD report was not properly considered by the EAC while recommending for the grant of EC and whether it is contrary to the directions of the Hon'ble High Court of Delhi;*
 - ii) *Whether the likely impact due to Thermal Power Plant on the Ecosystem was not yet studied and the same amounts to violation of Precautionary Principle;*
 - iii) *Whether the EAC was prejudiced and influenced by earlier clearance granted to the project and further failed to keep in mind the Principle of Sustainable development while recommending for grant of EC.*

7. It is the case of the appellant that he is a resident of Ganpatipule Taluka, Ratnagiri District in Maharashtra and earns his livelihood mainly from mango business and owns mango orchards in the project affected area. Ratnagiri district produces Alphonso mangoes and the

EC granted by the MoEF as upheld by NEAA is arbitrary and illegal. There is violation of Environment Impact Assessment Notification 1994 as amended in 2002. The MoEF erred in relying upon the KKVD report which was inconclusive and does not certify that the proposed project shall not have irreversible adverse impact on the environment. The EC order and the NEAA order are based on wrong assumptions and statements and contrary to the observations and directions issued by the Hon'ble High Court of Delhi while disposing of the writ petition. The KKVD report was not properly considered by the EAC while recommending for the grant of EC and it is contrary to the directions of the Hon'ble High Court of Delhi. The likely impact due to Thermal Power Plant on the Ecosystem was not yet studied and the same amounts to violation of Precautionary Principle. The EAC was prejudiced and influenced by earlier clearance granted to the project and further failed to keep the principle of sustainable development while recommending for grant of EC. Whereas, it is the case of Respondent No. 1 that subsequent to the order of the Hon'ble High Court of Delhi dated 18.9.2009, the respondent No. 1 placed the matter before the Expert Appraisal Committee (Thermal Power) in its 58th, 60th and 62nd meetings held during November 10-11, 2009, December 11-12, 2009 and January 11-12, 2010, respectively. The Expert Appraisal Committee (Thermal Power) have scientifically viewed the likely impact on Alphonso mangoes before recommending grant of EC for 4x300mw coal based TPP. The Respondent No. 1 in acceptance of the recommendations of the Expert Appraisal Committee upheld the

EC issued on 17.5.2007 with additional conditions including installation of Flue Gas Desulphurisation (FGD).

8. No doubt, the KKVD Report was not ready since the data are to be gathered over a period of four years as per the work plan provided in the study proposal on “ Effect of Pollution from the Proposed Thermal Power Plant (1200 MW) on growth, Yield and Quality of Alphonso Mango in Jaigad Area” submitted by the KKVD to the JSW Energy (Ratnagiri) Limited. In view of the above, as directed by the EAC, the Sub-group consisting of Shri T.K. Dhar, Prof. R.V. Ram Rao, Dr. S.K. Paliwal and Prof. C.R. Babu conducted a study and reported that there is no threat to Alphonso mango trees because of the TPP. The report reads as under:

- i. As per the model, the predicted levels of SO₂ in the maximum impact zone from the project site (5km away from the site on the downwind side) is between 26 to 35 µg m³ against the present level of 5 to 18.2 µg m³. The area supports 1.72% of the 336.145 hectares of Alphonso mango plantation. The vehicular pollution gradient observed along 5 km distance on the downwind side from Ratnagiri Maruti Junction showed concentration of SPM, RSPM, SO₂ and NO_x in the range of 100.8 -- 382.1, 71.7 to 97.4, 6.6 to 28.8 and 6.4 to 25.3 µg m⁻³. Both Alphonso mango and cashew nut plants are phenotypically similar in all the parameters estimated suggesting that both the species tolerant to these concentrations. This is also supported by the published report on the impacts of 40 to 90 µg m⁻³ SO₂ from the old thermal power plants on the metabolism of mango plant and also the absence of leafy injury in saplings of Alphonso mango when exposed to exposure of very high concentrations of SO₂ (2132 µg m⁻³). These observations suggest that Alphonso mango is tolerant to much higher levels of SO₂ than those predicted by the model. Samiullah also found that air pollution generated by Coal fired Power Plant had least effects on the crops grown at 5 km distance on the downwind side from TPP.

Further, even if there are negative impacts, the impacts are restricted within 5 km radius of the project site which harbor poor quality orchards which are a few in number suggesting that there will be no reduction in mango production. In fact, JSW also undertook massive Alphonso mango plantation which offset the production losses due to project impacts. Samiullah also found that air pollution generated by old coal fired power plant least affected crops grown at 5 km distance on the downwind side from TPP.

- ii. The preliminary data from enclosure experiments conducted also reveal that the concentrations of SO_2 () and NO_x () used have no visible impact on the mango. In fact these concentrations were never reported from the areas close to old coal fired thermal power plants. Details of concentrations used and results are not yet made available to the group.
- iii. The published literature on the SO_2 levels of 32 to 274 $\mu\text{g m}^{-3}$ for 8 h per day for 17 weeks in open top chamber experiments have demonstrated no effect on the height, average leaf area and dry weight and total number of leaves. Similarly no significant effects were observed with SO_2 levels 100, 113 and 126 $\mu\text{g m}^{-3}$ in open air fumigation system on the grain yield or total plant height in winter barley. These observation do suggest that the emissions from 4x300 MW TPP may not have any significant effects on mango and cashew nut.
- iv. The area is a ghat located close to the tropical seas with excellent drainage system and receives high rainfall for about 4 to 6 months and there are no winter inversions. In other words self purification of atmosphere takes place and there is no build up of pollution load. Consequently, there may not be impacts (except for 5 km radius from the project site) on Alphonso mango, cashew and coconut and even in soils in the same way as conceived by the local communities.
- v. There is an enormous phenotypic variability in both Alphonso and cashew with respect to horticultural, and physiological attributes, and pest and pathogen loads across the locations suggesting that both the species have broad genetic base. There is no relationship between the plant attributes analyzed and the variation found in ambient air quality thereby suggesting that the phenotypic variability observed in both the species may not be influenced by the ambient air quality but it is of bioedaphic origin (cultural practices and soil conditions). These results also suggests that both the species adopt to environmental changes within their tolerance limits.

9. From perusal of the records, it is seen that in the 58th meeting of the EAC (Thermal power) held on 10-11, November 2009, it was recorded that representatives of KKVD had stated that the process of data collection is in progress in Dapoli and the Alphonso mangoes are primarily grown in Ratnagiri and Sindhudurg District and as on date no power plant is in operation in Ratnagiri District and as such it was suggested to expedite the study, and baseline data may be collected in Raigarh District where a 22 mw power plant is in operation. In the meeting of EAC held on 11-12 December 2009 (60th EAC Meeting), a representative of KKVD was present who informed the Committee that the experimental designs can be modified and additional plant parameters can be included in the study. In the meeting held on 11-12 of January 2010, though it appears the KKVD study was not referred to, it relied upon the report of the sub-group of the EAC. In fact, the Members of the sub-group of EAC are all members of the EAC. Though, the Hon'ble High Court directed EAC to reconsider the recommendations in the light of study of the KKVD, it is a fact that such a study has to be carried out over a period of four years in two phases i.e. one year pre-commissioning of the Thermal Power Plant and three years after commissioning of the TPP. The KKVD's first annual report has been furnished in April 2009 which was to be followed by subsequent reports over a period of three years. The first report of KKVD was placed before the EAC /MoEF in the meeting held on October 2009. The available report of KKVD on

the basis of data collected thus far and analysed was considered by the sub-group. Thus, it cannot be said that the KKVD report was not taken into consideration while recommending for grant of EC by the EAC. The sub-group of EAC specifically refers to Science & Technology Park (STP), Pune had compiled the information on impact of coal based power plants, particularly mango and aquatic ecology based on the published research and development papers. This was specifically evaluated and considered by the EAC. In the meeting held in the months of November and December 2009, the representatives of KKVD and Maharashtra Pollution Control Board considered their expert views prior to finalizing and forwarding recommendations. Apart from this, Prof. Saimullah of Aligarh Muslim University shared his expert knowledge and literature on the subject and his views were considered by EAC sub-group.

10. It appears there are no Alphonso mango orchards elsewhere nearer to Thermal Power Project where studies could be conducted and analysed. This is a peculiar situation and in the light of that the KKVD was directed to conduct two phase study i.e. one year pre-commissioning stage and three years post commissioning stage. No doubt, apart from this, some other study was also conducted which may not have much relevance for the purpose of this case. Therefore, it cannot be said that the KKVD report was not taken into consideration and therefore, the directions of the

Hon'ble High Court of Delhi were not adhered to and as such the EC requires to be interfered.

11. In so far as the question as to whether the EAC did not consider the precautionary principle as alleged by the appellant, it may be *per se* noticed that apart from the above findings, we have found that the EAC as well as the MoEF have taken all the precautionary measures in the conditions attached to the EC in respect of the effect of TPP on the mango plantations and other significant environmental issues as reproduced below from the letter No. J-13012/52/2006-IA.II(T) dated April 16, 2010 from MoEF, Government of India addressed to the Project Proponent:

Sub-para (i) Para 2

- i) Flue Gas De-sulphurisation (FGD) system shall be installed before commissioning the project and action in this regards shall be submitted within three months to the Ministry.

Sub-para (iv) of Para 2:

- ii) Dense plantation of density not less than 2500 trees/shrubs per ha (and survival rate not less than 70%) including plantations of Alphanso mango and.....shall be raised within and outside the study area to act as buffer.

Sub-para (xii) of para 2:

- iii) The proponent shall upload the status of compliance of the conditions stipulated in the environmental clearance, including

results of the continuously monitored data on their website and shall update the same periodically.

12. In addition to the above, in its letter No. J-13011/52/2006-IA.II (T) dated June 28, 2010 the MoEF, Government of India communicated the following conditions to the Project Proponent:

Sub-para (iii) of Para 3:

- (iii) M/s JSWERL shall reduce the power generation and/or change to a fuel with low sulphur content or close the power plant, if so required in case the SO₂ level exceed the prescribed standards till the installation of FGD.

Sub-para (vi) of Para 3:

- (vi) If at any point of time adverse impacts on mango orchards are noticed/established, the plant shall be shut-down.

13. After noticing the above, it cannot be said that the official respondents have not taken the precautionary principles into consideration in the process of granting of EC and relied upon a report which suffers from serious deficiencies and short comings being based on wrong assumptions and the sensitivity of mango to sulphur dioxide has not been considered. Further, it also cannot be said, that the EAC and MoEF are prejudiced by the earlier grant of EC while reconsidering the EC. All other allegations made by the appellant have no bearing on the issues in question, therefore, they need not be delved further.

14. Production of electricity is very essential for industrial growth apart from domestic need. In the light of the existing power scenario in the country, the project under consideration when operated within the eco-legal frame work may contribute significantly to sustainable industrial development in the area under consideration. Therefore, the project under consideration does not violate the principle of Sustainable Development.

15. For all the above reasons, we are of the considered opinion that the appeal is devoid of any merit and liable to be dismissed. However, we make it clear that the authorities concerned shall monitor and take care of the Precautionary Principle and the post commissioning mitigative measures attached to the EC and take appropriate action as and when necessary.

The appeal is accordingly dismissed. No order as to costs.

(Prof. R Nagendran)

(Justice C.V. Ramulu)