

# CENTRAL EMPOWERED COMMITTEE (CONSTITUTED BY THE HON'BLE SUPREME COURT OF INDIA IN WRIT PETITION (CIVIL) No. 202/95 & 171/96)

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File No. 1-26/CEC/SC/2008-Pt.XXIX

Dated 22<sup>nd</sup> December, 2008

To

The DGF &SS  
Ministry of Environment & Forests  
Paryavaran Bhawan  
CGO Complex, Lodhi Road  
New Delhi 110003

**Sub: Clarification on NPV for the minimum rate in case of Wind Energy as per the Hon'ble Supreme Court's order dated 24.4.2008.**

Sir,

Please refer to FC Division letter No. 7-17/2008-FC(Pt.) dated 16.12.2008 on the above subject. Pursuant to the order of the Hon'ble Supreme Court, for the Wind Energy Projects NPV is payable at the rate of the 50% of the minimum rate of the NPV, irrespective of the eco-class in which the project lies.

*urgent please.*

*[Signature]*  
22.12.08

Yours faithfully,

*[Signature]*

(M.K.Jiwrajka)  
Member Secretary

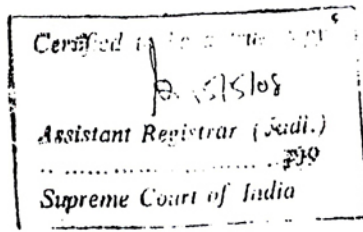
IGF (FC)

A/GFE (CDS)

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-184026

IN THE SUPREME COURT OF INDIA

CIVIL ORIGINAL JURISDICTION

I.A. Nos. 826 IN 566 WITH 955 IN 566, 958, 985, 1001-1001A, 1013-14, 1016-1018, 1019, 1046, 1047, 1135-1136, 1164, 1180-1181, 1182-1183, 1196, 1208-1209, 1222-1223, 1224-1225, 1229, 1233 IN 1135-1136, 1248-1249, 1253, 1301-1302, 1303-1304, 1312, 1313, 1314, 1318, 1319 IN 1137, 1325, 1364, 1365-1366, 1370-1370A, 1371, 1384, 1385-1386, 1387, 1434, 1435-1437, 1438, 1441 WITH 1634, 1475-1476, 1513, 1573, 1639 IN 1135-1136 IN IA 566, 1664, 1665, 1671, 1676, 1707, 1721, 1779 IN 1164 IN 566, 1785-1786 IN I.A. NO. 1441, 1980-1981, 1993, 2013, 2074-2076, 2077-2078 IN 1441 & 2092 IN 1233 IN 1135-1136, 2145-2146, 2147-2148, 2149-2150 & 2153-2154 IN I.A. 566 IN W.P.(C) NO. 202/1995

T.N. Godavarman Thirumulpad

...Petitioners

Versus

Union of India & Ors.

...Respondents

O R D E R

It is an undisputed fact that the forest in this country is an important and vital component to sustain the life support system on this planet. For various reasons, our forest is being slowly depleted.

At the same time, as part of our developmental activities, some areas of the forest have to be used for non-forest purposes. The economic development shall not be at the cost of complete degradation of the forest or the environment and eco-system provided by the green area of the forest. Therefore, it was considered whether the user agency of such land which is required for developmental activities to compensate for the diversion of the forest and on the recommendations of the Central Empowered Committee (hereinafter being referred to as "CEC"), it was decided by this Court that the user agency shall be required to make payment of net present value(NPV) of such diverted land so as to utilize this for getting back in the long run which are lost by such diversion. A scheme was submitted by Ministry of Environment and Forests(MOEF) alongwith an affidavit dated 22.3.2002. The CEC considered all relevant aspects including the scheme submitted by MOEF and filed a report on 9.8.2002. These reports were accepted by this Court. This Court in T.N. Godavarman Thirumulpad Vs. Union of India 2006(1) SCC 1 finally directed that the question as to what amount of NPV is required to be paid and to achieve these objectives, it was directed that the question is to be examined by experts. A Committee

comprising of three experts including Mrs. Kanchan Chopra was appointed and this Court gave the following directions:-

- (i) to identify and define parameters (scientific, biometric and social) on the basis of which each of the categories of values of forest land should be estimated.
- (ii) To formulate a practical methodology applicable to different biogeographical zones of India for estimation of the values in monetary terms in respect of each of the above categories of forest values.
- (iii) To illustratively apply this methodology to obtain actual numerical values for different forest types for each biogeographical zone in the country.
- (iv) To determine on the basis of established principles of public finance, who should pay the costs of restoration and/or compensation with respect to each category of values of forests
- (v) Which projects deserve to be exempted from payment of NPV

On the basis of the directions issued by this Court, a Committee consisting of Mrs. Kanchan Chopra gave a report and the same was examined by the CEC.

The report contains detailed study of the relevant factors. The Forest Survey of India, has since last two decades, been undertaking forest cover mapping of the country using satellite data obtained by the NRSA, Hyderabad. The methodology of mapping involves the geo-rectification of the satellite imagery using the Survey of India toposheets followed by the digital interpretation of the same and extensive ground truthing. It was found that the forest cover maps depicts mainly three tree canopy density classes, viz., very dense, moderately dense and open. There were other classifications in the Forest of India and "Champion and Seth" have classified the forests of India into 16 major groups. The major basis of classification included the climate, the soil and the past treatment as these factors determine the vegetation type of a given locality. CEC has classified the forest taking in view the ecological role and value of the forests and for the purpose of the report, 16 major forest types have been

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further grouped into 6 ecological classes depending upon their ecological functions.

Eco-Class I Consisting of Tropical Wet Evergreen Forests, Tropical Semi Evergreen Forests and Tropical Moist Deciduous Forests,

Eco- Class II -Consisting of Littoral and Swamp Forests

Eco-Class III -Consisting of Tropical Dry Deciduous Forests

Eco-Class IV -Consisting of Tropical Thorn Forests and Tropical Dry Evergreen Forests

Eco-Class V -Consisting of Sub-tropical Broad Leaved, Hill Forests, Sub-Tropical Pine Forests and Sub Tropical Dry Evergreen Forests

Eco-Class VI -Consisting of Montane Wet Temperate Forests, Himalayan Moist Temperate Forests, Himalayan Dry Temperate Forests. Sub Alpine Forest. Moist Alpine Scrub and Dry Alpine Scrub

Based on the ecological importance of forest falling in different eco-value and canopy density classes, relative weightage factors have also been taken into consideration. By using these relative weightage factors, the equalized forest area in eco-value Class I and very dense forest corresponding to forest falling in different eco-value and density classes have been compiled. For example 17,997 sq. km. of open forest of Eco-Class IV has been calculated to be equivalent to 7.558 sq. km. of very dense forest of Eco-Value Class I. Accordingly, the entire forest area of the country has been calculated and found to be equivalent to 5.2 lakh sq. km. forest area having highest ecological significance as that of forest falling in eco-value Class I with density above 70%.

The net present value per hectare of forest has been fixed based on this data. For calculating the average net present value per hectare of forest in India, the following monetary value of goods and services provided by the forest have been considered:-

- (i) Value of timber and fuel wood
- (ii) Value of Non Timber Forest Products (NTFP)
- (iii) Value of fodder

- (iv) Value of Eco-tourism
- (v) Value of bio-prospecting
- (vi) Value of Ecological services of forest
- (vii) Value of Flagship Species
- (viii) Carbon Sequestration Value

Based on this, the NPV was fixed and the following recommendations have been made:-

- (i) for non-forestry use/diversion of forest land, the NPV may be directed to be deposited in the Compensatory Afforestation Fund as per the rates given below:-

(in Rs.)				
Eco-Value class	Very Dense Forest	Dense Forest	Dense Forest	Open Forest
Class I	10,43,000	9,39,000	7,30,000	
Class II	10,43,000	9,39,000	7,30,000	
Class III	8,87,000	8,03,000	6,26,000	
Class IV	6,26,000	5,63,000	4,38,000	
Class V	9,39,000	8,45,000	6,57,000	
Class VI	9,91,000	8,97,000	6,99,000	

- (ii) the use of forest land falling in National Parks / Wildlife Sanctuaries will be permissible only in totally unavoidable circumstances for public interest projects and after obtaining



permission from the Hon'ble Court. Such permissions may be considered on payment of an amount equal to ten times in the case of National Parks and five times in the case of Sanctuaries respectively of the NPV payable for such areas. The use of non-forest land falling within the National Parks and Wildlife Sanctuaries may be permitted on payment of an amount equal to the NPV payable for the adjoining forest area. In respect of non-forest land falling within marine National Parks / Wildlife Sanctuaries, the amount may be fixed at five times the NPV payable for the adjoining forest area;

- (iii) these NPV rates may be made applicable with prospective effect except in specific cases such as Lower Subhanshri Project, mining leases of SECL, Field Firing Ranges, wherein pursuant to the orders passed by this Hon'ble Court, the approvals have been accorded on lump-sum payment / no payment towards the NPV; and
- (iv) for preparation and supply of district level maps and GPS equipments to the concerned State / UT Forest Departments and the regional offices of the MoEF; the Ad-hoc CAMPA

may be asked to provide an amount of Rs.1.0 crore to the Forest Survey of India out of the interest received by it.

Ministry of Environment and Forests also has filed its response and has accepted the recommendations made by CEC. Various user agencies have filed its objections. We heard the learned senior Counsel Mr. Nariman and other learned senior Counsel who appeared before us. The main contention raised is that the NPV value was fixed on the basis of the net flow accruing over 20 years at a 5% social discount rate. This, according to the applicants, is too low. It has been contended that the Economic and Research Department of the Asian Development Bank is of the view that a survey of the social discount rate policies of individual countries show significant variations and the developing countries apply higher social discount rate. The paper published by Asian Development Bank shows that India should have a social discount rate of 12%. It may be noted that the Expert Committee under the leadership of Mrs. Kanchan Chopra recommended 5% social discount rate but the CEC has reduced further and accepted 4% social discount rate. It may be noted that the CEC had made consultation with eminent

economists and it was of the view that the social discount rate should be around 2% in India. We do not find much force in the contention advanced by the learned Counsel who appeared for the user agents. The 10% suggested by them cannot be applied to the present case because 10% is the rate linked to assumptions about the opportunity cost of capital. One cannot apply that rate for social time preference in evaluating the benefits from an environmental resource such as forests. In project evaluation, the horizon is compatible with the life of the project whereas in forest matters, the horizon spans over several generations. Therefore, the rate of 10%, as suggested by the user agency cannot be accepted.

Another contention raised by the applicant(FIMI) is that the NPV is not fixed on site specific and, therefore, the fixation of the rate is based on surmises and conjectures and the same rate cannot be applied to the large extent of area covered by the forests. This question was elaborately considered by the CEC. Considering the large extent of this country and the forest being spread over in various parts of the State, it is difficult to fix the NPV based on the specific area. It is not feasible to fix NPV in each and every individual

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projects such as community centres in rural areas which require forest land upto 2 ha;

- (ii) rural infrastructure and basic services such as the construction of the overhead tanks, village roads, etc.
- (iii) the minor irrigation projects upto 10 ha. of storage area, municipal water supply projects, drinking water supply pipelines;
- (iv) activities necessary for the ecological management, relocation of the villages from the sanctuaries and the national parks, regularization of pre-1980 eligible encroachers;
- (v) housing for the rehabilitation of tribals; laying of the underground optical fibre cables;
- (vi) laying of the pipelines for the underground gas transportation;
- (vii) the district and rural roads;
- (viii) shifting cultivation;
- (ix) roads constructed by Defence in border areas;
- (x) construction of the transmission lines.

case. The entire forest area in each of the State/UT is calculated by considering the monetary value of the services provided by it. The average NPV per hectare of the forest area in the State has also been calculated. If NPV is to be calculated on the specific area, the process would be time consuming and in most of the cases, it may be beyond the capability of the Range Forest Officers or other officials posted at the grassroot level. Moreover, the NPV is linked with the type of the forest and no useful purpose would be served by carrying out NPV calculations in each case involving the diversion of forest areas.

We are of the view that the NPV now fixed is more scientific and is based on all available data. We accept the recommendations and we make it clear that the NPV rate now fixed would hold good for a period of three years and subject to variation after three years. The following exemptions have been recommended:-

- (i) public works such as schools, hospitals, children play grounds of non-commercial nature and the public welfare

The above recommendations for exemptions are accepted. If, in any case, exemption is required by nature of the peculiar circumstances of the case, the same would be decided as and when necessary on a case to case basis.

.....CJI  
(K.G. BALAKRISHNAN)

.....J.  
(DR. ARIJIT PASAYAT)

.....J.  
(S.H. KAPADIA)

New Delhi;  
March 28, 2008.