

IN THE SUPREME COURT OF INDIA

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 and 2098 in 1233 in 1135-1136, 2145-2146, 2147-2148, 2149-2150 and 2153-2154 in I.A. 566 in W.P.(C) No. 202/1995

Decided On: 28.03.2008

Appellants: **T.N. Godavarman Thirumulpad**
Vs.
Respondent: **Union of India (UOI) and Ors.**

Connected Order

Hon'ble Judges: K.G. Balakrishnan, C.J., Arijit Pasayat and S.H. Kapadia, JJ.

Subject: Environment

Cases Referred:

T.N. Godavarman Thirumulpad v. Union of India

Citing Reference:

T.N. Godavarman Thirumulpad v. Union of India Discussed

Case Note:

Environment – Fixation of Net Present Value – User agency of land required for developmental activities to compensate for diversion of forest – On recommendation of Central Empowered Committee ("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 – Committee appointed to examine what amount of NPV to be paid – NPV value per hectare of forest fixed on the basis of the net flow accruing over 20 years at a 5% social discount rate – CEC reduced social discount rate to 4% – User agencies filed objections that NPV fixed was too low – Held, 10% social discount rate cannot be applied 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 – Rate of 10%, as suggested by the user agency cannot be accepted – 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 – Not feasible to fix NPV in each and every individual case – 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 – NPV now fixed more scientific and based on all available data – Recommendation accepted – NPV rate now fixed to hold good for a period of three years – Exemption recommended 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. [para 7, 8, 9, 10]

Ratio Decidendi:

One cannot apply higher NPV rate for social time preference in evaluating the benefits from an environmental resource such as forests.

ORDER

1. 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 v. Union of India MANU/SC/0596/2005 : AIR2005SC4256** 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.

2. 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.

3. 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 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

4. 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%.

5. 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

6. 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:

Eco-Value class	(in Rs.)		
	Very 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.

7. 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.

8. 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 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.

9. 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 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 sacruaries 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.

10. 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.

Connected Order

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 and 2098 in 1233 in 1135-1136, 2145-2146, 2147-2148, 2149-2150 and 2153-2154 in I.A. 566 in W.P.(C) No. 202/1995

Decided On: 09.05.2008

Appellants: **T.N. Godavarman Thirumulpad**

Vs.

Respondent: **Union of India (UOI) and Ors.**

Hon'ble Judges: K.G. Balakrishnan, C.J., Arijit Pasayat and S.H. Kapadia, JJ.

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ORDER

1. On 28th March, 2008, we had passed an order regarding payment of Net Present Value (NPV) accepting the recommendations made by CEC which were more or less acceptable to MoEF. In that order we had also indicated that exemptions from payment of NPV have to be granted in respect of certain categories. However, it is brought to our notice that certain typographical mistakes had crept in that order as to categories to which such exemptions are to be granted. Therefore, we direct that as regards exemptions from payment of NPV, the last part of that order reading "*We are of the view.....(x) construction of the transmission lines*" on pages 10 to 11 shall stand substituted with the following:

Category	CEC
i) Schools	(a) no felling of trees is involved; (b) alternate forest land is not available;
ii) Hospitals	
iii) Children's play ground of non commercial nature	
iv) Community centres in rural areas	
v) Over-head tanks	
vi) Village tanks,	
vii) Laying of underground drinking water pipeline upto 4 diameter and	(c) the project is of non-commercial nature and is part of the Plan/Non- Plan Scheme of Government; and

viii) Electricity distribution line upto 22 KV in rural areas.	(d) the area is outside National Park/Sanctuary
Relocation of villages from the National Parks/Sanctuary to alternate forest land	Full Exemption
Collection of boulders/silts from the river belts in the forest area	Full exemption provided:- (a) area is outside National Park/Sanctuary; (b) no mining lease is approved/signed in respect of this area; (c) the works including the sale of boulders/silt are carried out departmentally or through Government undertaking or through the Economic Development Committee or Joint Forest Management Committee; (d) the activity is necessary for conservation and protection of forests; and (e) the sale proceeds are used for protection/conservation of forests
Laying of underground optical fibre cable	Full exemption provided: (a) no felling of trees is involved; and (b) areas falls outside National Park/Sanctuary
Pre-1980 regularisation of encroachments and conversion of forest villages into revenue villages	Full exemption provided these are strictly in accordance with MoEF's Guidelines dated 18.9.1990.
Underground mining	50% of the NPV of the entire area

2. 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.