SUPREME COURT OF INDIA **REPORTABLE**

Bench: Justices B.R. Gavai, Aravind Kumar, and Prashant Kumar Mishra

Date of Decision: 24th January 2024

CIVIL APPELLATE JURISDICTION

WRIT PETITION (CIVIL) NO. 202 OF 1995

CIVIL APPEAL NO. 12234-35 of 2018

T.N. GODAVARMAN THIRUMULPAD …PETITIONER

VERSUS

UNION OF INDIA AND OTHERS …RESPONDENT(S)

GOA FOUNDATION …APPELLANT

VERSUS

STATE OF GOA AND OTHERS …RESPONDENTS

Legislation and Rules:

Forest (Conservation) Act, 1980

Indian Forest Act, 1927

Town and Country Planning Act, 1974

Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

Subject: The appeals challenge the criteria set by the State of Goa for identifying ‘forests’ on private land, questioning the minimum area requirement of 5 hectares and canopy density of 0.4.

Headnotes:

Goa’s Criteria for Identifying Private Forests – Validity Upheld – Supreme Court rejects the challenge to Goa’s criteria for identifying private forests – Minimum area of 5 hectares and canopy density of 0.4 deemed appropriate, rejecting the proposed reduction to 1 hectare and 0.1 canopy density – Criteria set in line with the Forest (Conservation) Act, 1980 and the Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 – Nationwide uniform criteria for forest identification not feasible due to diverse geographic conditions across states [Paras 1-70].

Environmental Law – Identification of Forests – Criteria for Identification of Forests in Private Properties in Goa – Challenged in Supreme Court – Appeal against National Green Tribunal Order – Upheld existing criteria for identification of forests in private properties – No modification of criteria required. [Para 1-5, 55-70]

Forest Conservation Act, 1980 – Application to Private Forests – Criteria for identifying 'forest' in private properties – Supreme Court upholds criteria set by State of Goa – Minimum area of 5 hectares and canopy density of 0.4 retained – No change to 1 hectare area and 0.1 canopy density as proposed by appellant. [Para 4, 59-67]

Jurisdiction – National Green Tribunal – Jurisdiction to alter forest identification criteria – Supreme Court finds NGT correctly declined to alter criteria set by State – Upholds NGT's decision in light of Supreme Court's earlier directions and established criteria. [Para 30, 55, 70]

Res Judicata – Challenge to Forest Identification Criteria – Criteria for identification of forests in private lands attaining finality in previous judgments – Appellant's challenge barred by principles of res judicata – Supreme Court holds no further reconsideration necessary. [Para 38-42, 70]

Conservation – Private Forests – Conservation measures in State of Goa – Court highlights significant forest cover in Goa – Criteria for identifying

forests crucial for conservation and protection – Supreme Court upholds existing criteria to ensure effective conservation. [Para 67, 70]

Sustainable Development – Balance between Environmental Protection and Development – Criteria for identification of forests seeks to balance environmental protection and developmental needs – Supreme Court recognizes importance of sustainable development in upholding criteria. [Para 67, 70]

Decision – Supreme Court's Decision – Criteria for identification of forests in private properties upheld – Existing criteria set by State of Goa retained – Appeals rejected, and interim order vacated. [Para 70]

Referred Cases:

- Tata Housing Development Corporation v. Goa Foundation (2003) 11 SCC 714
- Nisarga v. Asst. Conservator of Forests OA No.19 (THC) of 2013
- In Re: TN Godavarman Thirumulpad (Writ Petition No.202 of 1995)
- T.N. Godavarman Thirumulpad v. Union of India (1997) 2 SCC 267
- Shivanand Salgaocar v. Tree Officer & Ors. Writ Petition No.162 of 1987 Bomb HC
- Lafarge Umiam Mining Pvt. Ltd. Vs. Union of India and ors. (2011) 7 SCALE 242
- Re: Constitution of Park-Anand Arya v. Noida (2011) 1 SCC 744 Para 30
- Nisarga v. Asst. Conservator of Forests OA No.19 (THC) of 2013
- T.N. Godavarman Thirumalpad v. Union of India (2008) 7 SCC 126.
- T.N. Godavarman Thirumalpad (87) v. Union of India (2006) 1 SCC 1

J U D G E M E N T

Aravind Kumar, J.

1. The present civil appeals arise out of common order dated 30.07.2014 passed by the National Green Tribunal (Western Zone) Bench, Pune[1] in

[1] Hereinafter to be read as “NGT”.

Application No.14 (THC) of 2013 (WZ) and Application No.16 (THC) of 2013 (WZ) filed by the appellant, whereunder the NGT has disposed of both the applications on the ground that the issue of determination of criteria for the identification of 'forest' forms part of the proceedings in ***TN Godavarman Case***[2] which is presently seized by this Court and hence, granted liberty to the appellant to approach this Court for the remedy. Therefore, the appellant has filed the present civil appeals under Section 22 of the National Green Tribunal Act, 2010,[3] seeking the modification of such criteria.

2. We have heard the arguments of Mr. Sanjay Parikh, Senior Advocate for the Appellant assisted by Ms. Srishti Agnihotri, Ld. Advocate, Mr. Nalin Kohli, Ld. Advocate for State of Goa assisted by Mr. Sanjay Upadhyay, Ld. Advocate, Ms. Suhashini Sen, Ld. Advocate for Union of India and Mr. Mukul Rohatgi, Ld. Senior Advocate for impleading applicant, perused the case-papers.

FACTUAL MATRIX IN BRIEF

3. The challenge in the present appeals revolves around the criteria issued by the Respondent(s) i.e., the State of Goa and Others for the identification of 'forests' in the State, hence, it is important to trace the history of adoption of these criteria which are under challenge before us. Accordingly, in the subsequent paragraphs we have traced the brief history of these criteria.

4. Pursuant to the Judgement of the High Court of Bombay in ***Shivanand Salgaocar v. Tree Officer & Ors***.[3] declaring the application of the Forest (Conservation) Act, 1980[4] to all lands, whether government or privately owned, the Conservator of Forests, State of Goa, in 1991 set out the guidelines for identifying '*forest'* in private properties. Vide letter dated 04.10.1991 the attention of the Ministry of Environment and Forest (MoEF) was sought on the said guidelines with a request to issue suitable guidelines

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[2] In Re: TN Godavarman Thirumulpad (Writ Petition No.202 of 1995). [3] Hereinafter to be referred as "NGT Act, 2010".

[3] Writ Petition No.162 of 1987.

[4] Hereinafter to be read as "FCA 1980".

to implement the FCA 1980 on the basis of the aforesaid decision of the Bombay High Court. The guidelines were as follows:

"*Criteria for application of Forest (Conservation) Act, 1980 to private forests.*

i) Extent of area: Long term viability of a piece of forest land is an important consideration. Obviously, very small patches of forest cannot be viable in the long run from conservation Point of view. Therefore, a minimum extent of area will have to be determined to which the Forest (Cons.) Act, 1980 would be applicable in private and revenue areas not recorded as 'forest'. I propose that this area should be at least 5 hectares. It is not worthy that the

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Forest (Cons.) Act, 1980 and guidelines made there under do not prescribe any such minimum area for application of the Act.

ii) Proximity and/or contiguity: The proximity of the private forests concerned to a larger forest area and / or its contiguity with the later area should also be an important aspect to consider while examining such areas.

iii) Composition of crop: It is important to prescribe minimum standards in terms of crop composition in order to distinguish forest species from horticultural species. This is particularly relevant in State like Goa where occurrence of large number of cashew, jackfruit and coconut trees in private areas is a common feature. We may perhaps prescribe that at least 75 of the crop should comprise of forest species.

iv) Crown density: It would not be meaningful to apply the Forest (Cons.) Act, 1980 to degraded and open areas under private ownership. Therefore, a minimum crown density of 40% may be adopted as a standard assessing the applicability of the Act in such private and revenue areas which are not recorded as 'forests' in the land records." [Emphasis supplied]

5. By an order dated 12.12.1996 in ***T.N. Godavarman Thirumulpad v. Union of India***[5]**,** this Court explained that the word "forest" for the purpose of Section 2(i) of the FCA 1980 must be understood according to its dictionary meaning, and would cover *"all statutorily recognised forests, whether designated as reserved, protected or otherwise".* This Court further explained that the term "forest land", occurring in Section 2 would include not only "forest" as understood in the dictionary sense, but also *"any area recorded as forest in the Government record irrespective of the ownership".*

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6. Further, this Court vide order dated 12.12.1996 in ***TN Godavarman Case*** (*supra*) directed all the States to constitute an expert committee for the following tasks:

"(i) Identify areas which are "forests", irrespective of whether they are so notified, recognised or classified under any law, and irrespective of the ownership of the land of such forest;

(ii) identify areas which were earlier forests but stand degraded, denuded or cleared; and

(iii) identify areas covered by plantation trees belonging to the Government and those belonging to private persons."

7. The Government of Goa, to implement the said order, constituted the *Sawant* Committee in 1997[6] which identified a total of 46.89 sq. kms as private forest. Thereafter the *Karapurkar* Committee was constituted in 2000[7] to identify the remaining areas. Since the *Karapurkar* Committee suggested a revisit to exclude some of the forest areas already identified by the Sawant Committee, the present appellant herein, Goa Foundation, filed Writ Petition

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[5] (1997) 2 SCC 267.
[6] Under the Chairmanship of Shri SM Sawant on 24.01.1997.
[7] Under the Chairmanship of Dr. H. Karapurkar on 04.09.2000. [9] Goa foundation v. State Government of Goa.

(Civil) No.181 of 2001[9] before this court challenging the appointment of the *Karapurkar* Committee. Meanwhile, the *Karapurkar* Committee submitted its final report and identified 20.18 sq. kms of private forests. Both the Committees for identification of an area as private forest followed the same criteria as was formulated by the Forest Department of Goa in 1991. However, the task of both the Committees was incomplete as some areas were left unidentified. This Court vide order dated 10.02.2006 disposed of the W.P. (C) No.181 of 2001 in following terms:-

"……*bulk of private forests in the State of Goa still remains to be identified and the same is being sacrificed in collusion with developers and vested interest persons and no action has been taken by the State Government to set up a fresh committee that will bring a finality to the order dated 12.12.1996 passed in WP Civil No. 202/1995. In substance, the prayer in the application is for appointment of another committee or for consideration of the issue by the Central Empowered Committee to identify the private forests. These issues, we are afraid, do not arise out of the writ petition which has become infructuous on Karapurkar Committee and Sawant Committee having submitted their reports. In case, the petitioner has any further relief to seek, it may, in accordance with law, file a fresh substantive petition before an appropriate forum which would be considered on its own merits".*

8. As a result of the order dated 10.02.2006, the present appellant i.e., Goa Foundation, filed Writ Petition No.334 of 2006 for directions to the State Government of Goa to complete the process of identification of forest and to identify the degraded forest lands in accordance with this Court's order dated 12.12.1996.

9. The State Government appointed two new Committees[8] to identify the remaining areas of private forests in North and South Goa districts that had not been identified by the previous Committee(s). The criteria used by these Committees to identify private forest were same as adopted earlier.

[8] The North Goa District Committee headed by K.G. Sharma and the South Goa District Committee headed by P.V. Sawant on 03.02.2010.

10. Further, the Appellant filed another Writ Petition being W.P. No.495 of 2010 before the High Court of Bombay, seeking the quashing of criteria pertaining to the canopy density which should not be less than 0.4. It was the Appellant's case that the non-consideration of forest areas having canopy density of 0.1-0.4 (10-40%) was contrary to the criteria allegedly accepted by this Court in the order dated 28.03.2008[9]. Hence, appellant claimed that category of open forest or degraded forest having canopy density of 10-40% were totally omitted from the identification process. Subsequently the petition was amended and the criteria of minimum 5 (five) Hectare was also challenged in view of the affidavit filed by the Forest Survey of India[10] wherein the forest cover was defined as being *"all lands more than 1 ha in area, with tree canopy density of more than 10% irrespective of ownership and legal status".* Meanwhile, by a notification dated 27.11.2012, the State of Goa again constituted two Committees[11] to identify the balance areas of private forests that had not been covered by the previous Committees. The criteria for identification of forest lands were same as followed earlier.

11. The Bombay High Court vide order dated 17.10.2013 transferred both the Writ Petitions[12] to the NGT which were renumbered as Application No.14 (THC) of 2013[13] and Application No.16 (THC) of 2013[14]. The NGT by the impugned order has set aside both the applications and hence the appellant is before this Court.

12. It is pertinent to mention that this Court vide order dated 04.02.2015, converted the Civil Appeal No.37942 of 2014 filed by Goa Foundation in IA No. 3845 of 2015 in WP No. 202 of 1995 and passed the following directions:

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[9] TN Godavarman Thirumulpad v. Union of India & Ors. (2008) 7 SCC 126.

[10] Hereinafter to be read as "FSI"

[11] The North Goa Forest Division Committee headed by V.T. Thomas and the South Goa Forest Division Committee headed by Francisco Araujo.

[12] W.P. No. 495 of 2010 & W.P. No. 334 of 2006.

[13] Writ Petition No. 495 of 2010.

[14] Writ Petition No. 334 of 2006.

"In the meanwhile, we direct that the respondents herein will not issue any 'No Objection Certificate' for the conversion of any plot that has natural vegetation with tree canopy density in excess of 0.1 and an area above one hectare."

13. It is pertinent to note that the present appeal originally came to be filed on 19.11.2014 as Civil Appeal No.37942 of 2014 assailing the final judgment dated 30.07.2014 passed by NGT. Thereafter, this Court vide Order dated 04.02.2015 converted the Civil Appeal No.37942 of 2014 filed by present appellant to I.A. No.3845 of 2015 in the proceedings before this Court in W.P. No.202 of 1995 (***T.N. Godavarman case).*** Vide order dated 04.02.2015, this Court issued a direction to State of Goa to not issue any 'No Objection Certificate' for conversion of any plot that has natural vegetation with tree canopy density in excess of 0.1 and an area above one hectare. Subsequent to Order dated 04.02.2015 of this Court, Respondent No.1 (i.e., State of Goa) filed I.A. No.40261 of 2017 for modification and clarification of Order dated 04.02.2015 of this Court. Thereafter, on 25.10.2018, this Court vide order dated 25.10.2018 passed in W.P. No.202 of 1995 directed to restore I.A. No.3485 filed by present appellant to its original status of a civil appeal and further it directed that I.A. No.40261 of 2017 filed by Respondent No.1 will be heard along with the said civil appeal. Accordingly, I.A. No.3845 in W.P. No.202 of 1995 came to be renumbered as Civil Appeal No.12234-12235 of 2018, which are the present civil appeals for adjudication before us. In the present civil appeals, I.A. No.116495 of 2022, came to be filed by Confederation of Real Estate Developer's Association of India (hereinafter referred to as "CREDAI"), seeking permission to be impleaded as party respondent, along with the said I.A., CREDAI has also filed I.A. No.116496 of 2022, wherein the impleading party sought vacation of Order dated 04.02.2015. Accordingly, the respondents in the present civil appeals along with the impleading party (i.e., CREDAI) are seeking to challenge the reliefs prayed for by the present appellant and have also sought vacation of the *ex-parte* interim order dated 04.02.2015 passed by this Court in W.P. No.202 of 1995.

DISCUSSION PERTAINING TO IMPUGNED JUDGEMENT

DATED 30.07.2014 PASSED BY NGT:

14. It was the contention of the appellant before the NGT that the subject applications raised the issue of identification and demarcation of private forests in the State of Goa as a result of this Court's order dated 12.12.1996 in ***TN Godavarman Case*** (*supra)* as per which the State Governments were required to identify and demarcate the forest area and degraded forest areas.

15. The appellant stated before NGT that there was no basis for criteria No.(iii) in the guidelines of 1991, which related to canopy density, as there are several forest areas, which are presently degraded and having canopy density of less than 0.4 but which were originally dense or medium dense forests and which must, accordingly, be identified as forests. It was also submitted that such lands cannot be unilaterally diverted to non-forestry purpose except with the prior approval under the FCA 1980. It was submitted that if criteria No.(iii) was accepted there would be no compliance with the directions given in terms of reference No.2 of the order dated 12.12.1996.

16. To back its contentions, the appellant relied upon this Court's order dated 28.03.2008[15] wherein this court while deciding the matters relating to Net Present Value (NPV) and compensatory afforestation costs accepted the report submitted by the Central Empowered Committee (CEC) titled "*Supplementary Report of CEC in IA No.826 & IA No.566 regarding calculation of Net Present Value (NPV) payable on Loss of Forest Lands of Different Types in non-forest purpose".* This Court had accepted the CEC's recommendations on certain economic values, proposed for Calculating the NPV and costs for Compensatory Afforestation (CA), involved in diversion of dense, moderate dense and open forest.

17. The appellant further relied upon the FSI Report, according to which, forest vegetation in the country falls specifically in three mutually inclusive canopy density classes:

i. Very Dense Forest (with crown density) 0.7 to 1.

[15] Order in Writ Petition No.202 of 1995

ii. Moderate dense Forest (with crown density) 0.4 to 0.7.

iii. Open forest (with crown density) 0.1 to 0.4.

18. It was, therefore, argued by the appellant before NGT that for the purpose of implementation of the FCA 1980, all the authorities including this Court, have clearly accepted that the areas of natural vegetation, having tree canopy density varying anywhere between 0.1 to 0.4, are to be considered as forest for the purpose of applicability of FCA 1980 and thereafter determination of NPV and CA. This aspect of enlarging the scope of criteria No.3 will be an essential step, as the report of the FSI, 2009 showed that the category of open forest (crown density of 0.1 to 0.4) is almost the same in extent, as both the categories of very dense forest and moderate dense forests are put together.

19. With regard to criteria No.(ii), which requires Minimum 5 Ha, the appellant had argued that the said criteria is defeating the purpose and mandate of FCA 1980 and the order of this Court dated 12.12.1996.

20. It was submitted before the tribunal that the FSI in its affidavit dated 23rd March 2011, submitted that it defines 'forest cover' as being all lands, more than 1 ha area, with a tree canopy density of more than 10% irrespective of ownership and legal status. Such lands may not necessarily be recorded as forest areas. Therefore, the appellant sought the following reliefs in the Application No.14 (THC) of 2013:

"For an order quashing the criteria nos. 2 & 3 of the Forest guidelines/criteria and the order of the Respondent No. 1, if any, approving the same".

21. In the application No.16 (THC) of 2013, the appellant submitted that in ***TN Godavarman's*** case *(supra),* this Court had issued various directions, vide its order dated 12.12.1996. It was the grievance of the appellant that the *Sawant* and *Karapurakar* Committees had not identified the areas, which were earlier forests but now stand degraded, denuded or cleared as per the directions of this Court. The appellant submitted that these Committees have not dealt with this issue or even formulated suitable criteria or framework for

notifying such degraded forest areas and therefore, the appellant prayed for following relief(s) in Application No.16 (THC) of 2013:

- *For an order directing the Govt of Goa to complete the process of identification of private forest in the State, within a time bound period in terms of Apex Court's order dated 12.12.1996 and report compliance;*

- *For an order directing the Govt. of Goa to complete the process of notifying the degraded forest within the State i.e., the areas which were earlier forest but stand degraded, denuded or cleared, in terms of Apex Court's order dated 12.12.1996 and report compliance.*

22. The Forest Department, Government of Goa, Respondent No.4, submitted that in the case of ***Shivananda Salgaonkar (supra)***, the High Court of Bombay, Goa Bench, in the judgement delivered on 27th November 1990 held that *"since the term 'forest' is not defined in the Forest (Conservation) Act, the term has to be taken as per the dictionary meaning".* Pursuant to this judgement, the forest department framed guidelines in 1991, for identifying the forest in private properties. These guidelines were submitted to the Ministry of Environment and Forest (MoEF), Government of India on 04.10.1991 for their response.

23. The Forest Department further submitted that pursuant to the orders of this Court, dated 12.12.1996, the State Govt. had appointed *Sawant* Committee for the purpose of identification of forest lands in the State of Goa on 24th January 1997, which submitted its report on 8th December 1999. The Committee was given task to identify areas which are 'forest' irrespective of whether they are so notified, recognized or classified under any law and irrespective of ownership of land of such forest and to identify areas which were earlier forests but stand degraded, denuded or cleared.

24. Since no cut off was given for the tasks, Committee decided 1980 year in which the Forest Act was promulgated, to be the benchmark for Government forest lands. Subsequently, another Expert Committee was appointed on 4th

September, 2000 for further identification of private forest, which also submitted its report on 16.02.2002.

25. The respondent further submitted that the *Sawant* Committee has already obtained data on clearings and diversion made on Government forest lands for various purposes from 1980 and identified that total 13.078 Ha of forest Land has been diverted for various purposes. It was claimed that the Expert Committees have already considered all aspects of the Apex Court direction dated 12.12.1996.

26. The respondent further submitted that the State had already defined the forest identification criteria based on the scientific basis considering various aspects as a policy decision and also, these two Expert Committees are functioning effectively and the work of identification of private forest area, is being carried out expeditiously and considering the above, the respondent had opposed both the applications.

27. The MoEF, Respondent No.2 stated that pursuant to the judgement in ***Lafarge Umiam Mining Pvt. Ltd. Vs. Union of India and ors***.[16], it was directed to prepare a comprehensive policy for inspection, verification and monitoring and overall procedure related to grant of Forest Clearance (FC) and Identification of Forest in consolidation with States and the process will likely take some more time and only after finalization of such comprehensive policy, the Ministry will be in position to put forth its stand as regards criteria, which is to be applied for identification of forests and further pleaded for sufficient time to place the stand of Ministry before the Tribunal.

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28. The Forest Survey of India, Respondent No.3 submitted before the NGT that FSI has mandated to conduct survey and assessment of the Forest resources in the country. It was submitted that India's States of Forest Report is published by the Respondent No.3 and in the said report forest cover is defined being of lands more than 1 Ha in area, with tree canopy density of more than 10% irrespective of ownership and legal status. Such lands may

[16] (2011) 7 SCALE 242

not necessarily be recorded as forest areas. It also includes the orchards, bamboo and palm.

29. **Issues framed by NGT:**

- *Whether the Tribunal has jurisdiction to consider and alter or newly fix the forest identification criteria?*
- *Whether the forest identification criteria set out by the Govt of Goa, needs modification, as prayed in the applications?*
- *Whether the Tribunal can issue directions for expediting forest identification and demarcation process, as prayed in the application?*
- *Whether the applications are barred by limitation?*

FINDINGS OF NGT IN THE IMPUGNED JUDGEMENT:

30. Having referred to the earlier pronouncements of this Court the Tribunal observed in paragraph 38 of the impugned order that all the States have formed Expert Committees for identification of forest and have submitted progress reports to this Court by evolving their own methodology for forest identification criteria. As such it was of the view that it would not be in the domain of the tribunal to render opinion with regard to the method of identification to be adopted for fixing the criteria for determining private forest to be adopted by State of Goa and answered point No.1 formulated by it in the negative.

31. In so far as the timeline to be fixed for expediting forest identification and its demarcation process is concerned, the tribunal took note of the fact that out of 256 square kilometres forest area, the work has been completed in respect of 67 square kilometres by the two Committees and as such called upon the Chief Secretary of Goa to call for a meeting of all the concerned and work out time bound action plan for early completion of forest identification and its demarcation within next six (6) weeks and submit a time bound program to the tribunal within 8 weeks thereof. All other reliefs sought for in the application of the appellant came to be denied. Hence the appellant has approached this Court by way of the present civil appeal.

CONTENTIONS ON BEHALF OF THE APPELLANT IN THE

PRESENT APPEAL:

32. It is the contention of learned counsel appearing for the appellant that the tribunal erred in not passing an order on merits on the premise that the issue is seisin before this Court. It is further contended that WP No.495 of 2010 was filed challenging the criteria of minimum 40 per cent canopy density for identification as forest land. In the teeth of the order of this Court dated 28.03.2008 passed in batch of IA's filed in WP No.202 of 1995 ***(T.N. Godavarman)*** in which the petition was amended and the minimum 5 (five) hectares area was also challenged in view of FSI's affidavit which stated that minimum 1 (one) hectare of area and minimum 10 per cent canopy or the criteria adopted by FSI for identifying the forest cover in India and this writ petition was transferred to the tribunal. Hence, it is contended that identification of private forests on the basis of criteria accepted by FSI and by this Court in the order of 2008 passed for determining NPV also to be adopted and followed for identification of forest, which would be in the interest of protection of environment and also a step for implementing the order dated 12.12.1996 passed by this Court as it has remained unmet by the State of Goa.

33. By referring to the three interim orders, namely 17.12.2006 and 26.03.2012 passed by the High Court and the order dated 04.02.2015 passed by this Court, it is contended that authorities have been injuncted from issuing conversion Sanad for any private properties with tree cover in excess of 0.1 all having natural vegetation and tree canopy density in excess of 0.1 and area above 1 (one) hectare which would clearly indicate that in order to protect the environment this relief was essential and so as to prevent any further degradation of the forest by its destruction.

34. It is also contended that to meet the mandate of the order dated 12.12.1996 the identification and demarcation of private forest area on the basis of 1 (one) hectare and 10 percent (0.1) canopy density is an exercise which must be carried out for meeting the said criteria which would be over and above the identification of forest area done on the criteria that is 75 per cent forest

species, 40 per cent canopy density and 5 (five) hectare of area, as the objective is to ensure restoration (and not diversion) of such forest area to their original status. Hence, contending if such identification is done on the basis of this criteria, it would subserve the interest of conservation and protection of environment and in a given case the Central/State Government can grant 'prior permission' within the provisions of FCA 1980 if it considers that such diversion is necessary in public interest and it would be in consonance with the principle of sustainable development. In this background the objection of the State of Goa to the criteria of the FSI to identify the open forest that is 0.1 canopy density and the area above 1 (one) hectare would not stand to reason. Elaborating the submissions, he would contend that the ISFR has identified 552 square kilometres on the basis of criteria fixed by it and if the said criteria is not adopted it would reduce the open forest area in the State of Goa to an extent of 552 square kilometre. Hence, he prays for the petition being allowed.

35. As mentioned in the submissions of the Appellant in the preceding paragraphs, to summarise, the Appellant herein prays for revisiting the criteria for identification of private forest/deemed forest on private lands in the State of Goa, by using the parameters used by FSI, that is based on 0.1 density forest in an area of 1 (one) ha.

CONTENTIONS ON BEHALF OF RESPONDENT NO.(S) 1,4,5,6,7 & 8 ALONG WITH CONTENTIONS OF THE IMPLEADING PARTY I.E., CREDAI.

36. The respondents have sought the modification and vacation of the above-mentioned order in the IA No.40261 of 2017 filed by them, and further have made submissions and raised various grounds for the dismissal of the present Civil Appeal Nos.12234-12235 of 2018. The respondents have urged that the Stay Order dated 04.02.2015 of this Court, has continued to operate for over eight years, which is impacting several developmental works in the State of Goa. In addition to this, by way of their Counter Affidavit, and numerous submissions made during the hearing of the present appeals, the Senior Counsel has raised several grounds for the dismissal of the present appeals and for vacation of the Order dated 04.02.2015.

37. Respondent No(s). 1,4,5,6,7 and 8, along with the impleading party i.e., CREDAI, have sought the vacation of the *ex parte* interim order dated 04.02.2015 passed by this Court in the present appeal, and they have also opposed the grant of relief sought by the Appellant in its appeal. In furtherance of this, the learned Senior Counsel for Respondent No.(s) 1,4,5,6,7 and 8 along with the learned Senior Counsel for the impleading party, i.e., CREDAI have raised various grounds and made elaborate submissions for the dismissal of the present appeals, which have been recorded by us in the subsequent paragraphs.

38. The respondent(s) contended that the criteria for identification of forest has attained finality and cannot be challenged on the principles of *res judicata*. It was submitted that the criteria for identification of forest on private land was determined in 1991 pursuant to the Judgement of the Bombay High Court dated 27.11.1990 in ***Shivanand Salgaonkar case*** (*supra)*.

39. It was further submitted that the criteria for identification of forests, which forms the basis of the reports filed by the *Sawant, Karapurkar* and *Sharma* Reports, were first proposed by the Forest Department of the State of Goa, in 1991. The Forest Department had proposed a crown density of 40% and a minimum area of 5 (five) Ha since it was not viable in the long run for the forest department to conserve small patches of forest land, as is evident from the letter dated 04.10.1991, and from the Affidavit filed by the State of Goa before this Court on 21.08.2012.

40. The counsel for the respondents contended that the aforesaid criteria formulated in 1991 was adopted by the State of Goa (*Sawant* and *Karapurkar* Committees) pursuant to the order dated 12.12.1996 passed by this Court in ***T.N. Godavarman*** *(supra),* however, despite being aware of the same, the Appellant did not challenge it. The respondents further contend that the State of Goa, on 08.12.1997 issued a public notice, which delineated the following criteria for the purpose of classifying “Forest”:

i. 75% of the tress composition should be forestry species.

ii. The area should be contiguous to the Govt. Forest and if in isolation, the minimum area should be 5 ha.

iii. Canopy density should not be less than 0.4.

41. The learned counsel for the respondents contended that the public notice dated 08.12.1997, has also not been challenged by the present appellants Further, the Appellant had an opportunity to challenge the same before this Court in ***Goa Foundation Case (supra)***[17], wherein it had raised grievances about the *Karapurkar* Committee report, however, it did not do so, and the said proceedings were thereafter disposed of as being infructuous on account of the filing of the *Karapurkar* report, by an order dated 10.02.2006.

42. Further, the counsel for the respondents have contended that Civil Appeal is *ex facie* barred by *res judicata* inasmuch as the very party that has preferred the same had sought to revisit the criteria twice before and failed. The respondents have pointed out to us that the Appellant preferred a Writ Petition before the High Court of Bombay at Goa disputing the criteria so adopted, and its application to a housing project. In an appeal preferred against the same, this Court in ***Tata Housing Development Corporation v. Goa Foundation (2003) 11 SCC 714*** strongly disapproved any departure from such criteria and adoption of a new criteria.

43. The learned counsel has submitted that this Court in ***Tata Housing (supra)*****,** after examining the reports of the *Sawant* Committee, recorded the genesis of the criteria, and also took note of its facets. Further, the learned counsel has laid emphasis on paragraph 13 of the judgement in ***Tata Housing (supra)*****,** wherein this Court disapproved the approach of the High Court in accepting a new criterion, in what it termed as giving a “complete go-by” to the existing criteria.

Accordingly, the counsel for the respondents contends that in sum and substance the pre-existing criteria received the imprimatur of this Court in ***Tata Housing (supra)*****,** hence, the principle of *Res Judicata* would apply and the present challenge to the criteria for identification of Forest deserves to be dismissed on this ground alone. The relevant paragraph

13 has been extracted below:

[17] Writ Petition No. 181 of 2001.

"13. From a bare perusal of the Third Interim Report, it would appear that the three criteria laid down in the Second Interim Report of the Sawant Committee have been given a complete goby and in relation to the appellants' plot altogether different criteria have been adopted. The course adopted by the Committee in taking into consideration different criteria while examining an individual case of the appellants' plot was wholly unwarranted, especially when the Committee in its Report has not assigned any reason for making the deviation."

44. The learned counsel for the respondent further contended that another judgment i.e., ***Nisarga v. Asst. Conservator of Forests*** *OA No.19 (THC) of 2013*, was concealed by the Appellant. The learned counsel submitted that the Appellant herein, approached the NGT arguing that the minimum canopy density to be adopted as a criterion ought to be 0.1 (i.e. 10%). It was submitted that the basis of this argument was identical to that advanced in this appeal, inasmuch as the Indian State of Forests Report, 2009 (ISFR) was relied upon to suggest that the said report had classified lands with canopy density between 10% to 40% as open forests. In other words, it was urged by the Appellant that even such lands were forest nonetheless. The NGT rejected this argument based on the judgment of this Court in ***Tata Housing (supra)*****.** The learned Counsel emphasized on the point that, the Appellant herein chose not to appeal the said judgment before this Court, and has allowed the same to attain finality. The counsel for the respondents submitted that Appellant cannot now be allowed to reagitate the very same issue on the very same basis before this Court.

45. The counsel for the respondent accordingly submitted that, criteria adopted by the State of Goa ought not to be interfered with; and the order dated 04.02.2015 passed by this Court directing a restraint on the grant of conversion *sanads* in the State of Goa ought to be vacated since the criterion for the identification of forest in the State of Goa has become final and binding, its variation having been rejected in ***Tata Housing (Supra)*** and ***Nisarg (Supra)*** by this Court and the NGT respectively.

46. The counsel for the respondent has submitted that the sheet anchor of the instant appeal is the formula adopted by this Court for the computation of NPV in ***T.N. Godavarman Thirumalpad v. Union of India***[18], and in turn the reliance by this Court on the report of Ms. *Kanchan Chopra*, which in turn relies on the Indian State of Forests Report, 2008 (ISFR) issued by the FSI. It is submitted that ISFR has classified canopy density into 3 kinds, namely, very dense, moderately dense, and open. Furthermore, this Court while fixing the NPV rates has fixed them per Hectare, basis which the Appellant contends that even 1 (one) Ha of land can be a forest. It is submitted that the Appellant sought to change the criteria for a private forest in Goa to a minimum area of 1 (one) Ha, and also a minimum canopy density of 0.1 which was the least denominator employed by the ISFR in classifying an open forest for the purposes of fixing NPV rates. The counsel for the respondents urged and emphasized that this argument of the Appellant is misconceived as it fails to take into account that the private forest criteria not only in Goa but throughout the country is distinct from that for government lands. Importantly, government land of even 1 (one) Ha can be a forest, and accordingly can attract the imposition of NPV. Moreover, this Court in ***T.N. Godavarman Thirumalpad (87) v. Union of India***[19] observed that the criteria for NPV must be worked out on economic principles and hence it is submitted that this can have no nexus with identification. Furthermore, the NPV imposition also encompasses government forests which could even be of 1 (one) Hectare. Hence, it is understandable that the NPV criteria is per Hectare i.e., it conceives of NPV being imposed even for government forests of 1 (one) Ha.

47. The counsel for the respondent further contends that this Court has never directed the adoption of NPV norms as those for identification of private forests. To suggest that the NPV norms be today adopted as the criteria for private forests would be nullifying the exercise conducted by the State of Goa in terms of the express order of this Court dated 12.12.96. Above all, the order of this Court, in directing each State to constitute its own Expert Committee expressly accepted that there can be no uniform criteria for such identification across the country. Lastly, in this regard, the counsel for the respondents contended that no State in the country has adopted the NPV

[18] (2008) 7 SCC 126.
[19] (2006) 1 SCC 1.

norms for classification of land as private forests, and if the Appellant's plea is accepted it would create dual legal regimes, namely, one in Goa and one in rest of the country.

48. The respondents further contends that if the criteria are implemented, this would also roughly mean that if there are 10 to 20 planted trees in an area of 10,000 sq. metres, it will be a 'deemed forest' and prior approval from the Central Government under the FC Act would be required. The respondent also drew our attention to the case of Re: Constitution of ***Park-Anand Arya v. Noida***[20] wherein the 3Judge bench of this Court had stated that if such criteria is agreed, then most of Delhi would be forest.

49. The learned counsel on behalf of the respondent(s) submits that there are enough safeguards in the State of Goa for protection of trees. The Goa Daman and Diu Preservation of Trees Act, 1984 is strictly enforced in this regard. The respondent further submits that the Ministry of Environment, Forest & Climate Change Guidelines as well as the Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 have been clear and unambiguous where it has exempted the application of FCA 1980 on areas which are less than 1 (one) ha and where not more than 75 trees have to be cut vide letter dated 03.01.2005 of Ministry of Environment and Forest and also Section 3(2) of the Forest Rights Act, 2006.

50. The learned counsel for the respondent(s) submits that the parameters used by FSI is to map the forest cover and the tree cover in India. This is distinguished from the Forest area and forest land which has been dealt with by this court in the ***Godavarman case (supra)*** in detail since 12.12.1996. The counsel drew our attention to the definition of 'Forest Cover' given by the FSI based on the "Minimum Mappable Area" available with FSI from Satellite Data. At present, the Minimum Mappable Area available to FSI for forest cover assessment is 1 (one) hectare since 2001 based on the resolution of satellite data. Prior to 2001, the Minimum Mappable Area for forest cover was 25 hectares from India State of Forest Report 1989 to India State of Forest Report 1999 and the same was 400 ha in 1987. The India State of Forest Report, 2017 which clearly shows that the FSI is describing the term 'forest cover' in all its India State of Forest Reports based on the

[20] (2011) 1 SCC 744 Para 30.

"Minimum Mappable Area" available to them through Satellite Data only based on the technological status and not on any other parameters. Thus, description of the forest cover by FSI was based on the availability of high resolution of Satellite data which has advanced/improved over period of time. Thus, in future, due to technical advancement, FSI might be able to map minimum forest area even less than 1 (one) hectare. However, the States cannot keep on changing the criteria for identification of deemed forests based on such parameters which have been set for an entirely different purpose. Therefore, respondent(s) submit that there is no-co-relation between the parameters set by FSI for identifying deemed forest based on Minimum mappable area and identification of the said area by respective states under the FCA 1980, in view of the Judgment dated 12.12.1996 in ***TN Godavarman case (supra)***, of this Court.

51. Further, the learned counsel for the respondents submits that if the 0.1 density argument is acceded by this Court, then every 10,000 sq. metres plot which has 10 to 20 trees would have to be determined as a forest and a cumbersome prior clearance would be required on every private land. They also submit that the State of Goa is placed uniquely in the Geographical ecosystem whereas per FSI, the total area under forest cover is about 60.2% under Forest Cover and another 8% as tree cover. This is almost three times the national average and twice the national goal. Thus, in addition to the 68% forest and tress cover, there are areas under the Coastal Regulation Zone Notification; areas under Ecologically Sensitive Area; areas under riverine and other wetlands; areas of no development where gradient is 25%. In other words, no, or very minimal area would be available for any future development. Hence, they submit the approach of the appellant would amount to punishing those people who have diligently planted trees on the private land for increasing the green cover of Goa.

52. The counsel for the respondent(s) also drew our attention to Part II of the ***Lafarge Judgement*** *(supra)* relating to Guidelines to be followed in future cases dealing with disputes regarding what constitutes a forest, wherein it is stated that if the project proponent makes a claim regarding the status of the land being non-forest and if there is any doubt then the site shall be inspected by the State Forest Department along with the regional office of Ministry of Environment & Forest to ascertain the status of forest, based on which the

certificate in this regard would be issued. In all such cases, it would be desirable for the representative of the State Forest Department to assist the Expert Appraisal Committee. In view of the above, if there is any doubt on the criteria for identification of forests, it is the State Forest Department and the Regional Office of Ministry of Environment, Forest & Climate Change, which would be the deciding authority.

53. The counsel on behalf of the respondent(s) lastly submits that the criteria for identifying the forests and the process therein by different States is under an Order of this Court dated 12.12.1996 in the ***TN Godavarman case*** *(supra)*. This Court mandated that the State Government to evolve the criteria as per their local situation and considering the fact that Forest, being a concurrent subject, needs to be determined as such by the State Government for applicability of the FCA 1980.

54. In the light of the above submissions, learned counsel for the respondent(s) pray for dismissal of the appeals.

DISCUSSION AND ANALYSIS:

55. Having heard learned advocates appearing for the parties, we are of the considered view that the following points would arise for our consideration:

1. Whether the impugned order of the tribunal requires to be affirmed or reversed?
2. Whether any further directions requires to be issued in the facts and circumstances? And if so, what directions or orders?
3. What order?

RE: POINT NO.1

56. At the outset, it requires to be noticed that the High Court of Judicature at Bombay in Writ Petition No.162 of 1987, disposed of on 27.11.1990, had taken note of the guidelines issued for division of forest area for non-forest purposes under the FCA 1980 and pursuant to the same the State of Goa

proposed certain criteria for identifying forest and the consequent application of the FCA 1980 to private forest. The then existing criteria are as follows: -

i. 75% of the tree composition should be forestry species.

ii. The area should be contiguous to the government forest and if in isolation the minimum area should be

5 (five) hectares; iii. The canopy density on the plot should not be less than 0.4. Subsequently, this Court in ***T.N. Godavarman Case (supra)***[21] vide order dated 12.12.1996 directed the State Governments to constitute within 1 (one) month an Expert Committee to: -

i. Identify the areas which are "forest", irrespective of whether they are so notified, recognized or classified under any law and irrespective of ownership of the land of such forest; ii. Identify areas which were earlier forests but stand degraded, denuded or cleared and; iii. Identify areas covered by plantation trees belonging to private persons.

57. Pursuant to the same the Government of Goa constituted *Sawant* Committee with terms of reference as indicated in Para 5 of ***TN Godavarman case*** *(supra)* by order dated 12.12.1996, the said Committee adopted the criteria (referred to herein above as then existing) which was also based upon the ***Shivanand Salgaocar's case*** (*supra)*. The criteria so determined was published in public notice dated 08.02.1997 and this was not challenged by anyone including the appellant herein.

58. It would be apt and appropriate to note at this juncture that in the matter of ***Tata Housing*** *(supra)* this Court had an occasion to consider the said criteria and to examine as to whether the report of the *Sawant* Committee is to be accepted or otherwise and the question so formulated in that regard reads as under: -

"11. *Thus, the question which falls for consideration of this Court is whether the High Court was justified in accepting the Third Interim*

[21] (1997) 2 SCC 267

Report of the Sawant Committee and allowing the writ application on the basis thereof. For deciding this question, it would be necessary to refer to the Second Interim Report of the Sawant Committee in which it has laid down three criteria for classifying any land as "forest". Relevant portions of the said Report run thus:

"After the formation of the Committee, it was first decided to get the forest cover through NRSA, Hyderabad but seeing the time involved and nature of interpretation, it was decided to carry out the exercise through physical verification by the departmental staff only. Nature of interpretation means the satellite data gives the natural green cover which includes most of the plantation/seasonal crops such as cashew, coconut, areca nut etc. For the purpose of classifying 'forest' such growth cannot be considered. The Committee has taken the stand that for considering any area as forest:

i. *75% of its composition should be forestry species.*
ii. *The area should be contiguous to government forest and if in isolation the minimum area should be 5 hectares. (iii) The canopy density should not be less than 0.4.*

The above criteria which was in existence with the Forest Department, Government of Goa has been approved by the Government of Goa.

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Based on the satellite imageries, toposheets, the areas outside the government forests have been marked on the map and the forest officials have done the physical verification of such areas applying the above criteria.

***

The Committee has procured the maps of 1978 from the Town and Country Planning Department which have been prepared based on the aerial photographs of 1960 and toposheets of 1960. In these maps natural green cover has been shown but again it does not either speak about the density or the species composition…. This natural green cover (pvt.) outside the government forests being very high compared to the figure likely to be arrived at by the Committee finally under the classification of private forests, it is obvious as this private green cover includes all types of vegetation

and of all density class including cashew crop which may not be fitted into the criteria taken for identification of private forests."

59. After having examined the records of the Sawant Committee, this Court in ***Tata Housing*** *(supra)* observed that the three criteria prescribed in the 2nd Report was just and proper and in conclusion it has been held: -

"12. *From a bare perusal of the aforesaid passages from the Second Interim Report of the Sawant Committee it would appear that the Committee had categorically laid down three criteria for identifying a land to be forest and it had rejected the Satellite Imagery and Toposheets of 1960 and Nature Green Cover Maps as the relevant criteria for classifying any land to be forest. In the Third Interim Report of the Sawant Committee in which it was reported that the appellants' plot was a forest, curiously enough, the three criteria referred to above, which were earlier followed by the Committee for holding a land to be a forest land, were abandoned. Instead, the Third Interim Report laid down principally the following criteria:*

(i) Satellite Imagery and Toposheets of 1960.

(ii) Report of the Sub-Committee for maintaining Nature Reserve Green Belt around cities, particularly with reference to the map prepared for nature reserve on hill slopes.

(iii) Enumeration of the plants in a 50-metre-wide belt adjoining the boundaries of the appellants' plot on three sides i.e. the north, east and west, but excluding the south side which had a huge public structure admeasuring 1000 sq metres."

18. *This being the position, we are of the view that the Third Interim Report of the Sawant Committee, having been based upon the criteria which were rejected by it in its previous report, cannot be accepted as there was no ground for making a departure therefrom while submitting the Report in relation to the appellants' plot. The Committee was not justified in holding the appellants' plot to be a forest land on the basis of an altogether different criteria for which there is no reasonable nexus, especially when none of the three criteria laid down in the Second Interim Report has been adhered*

to. Thus the High Court was not justified in accepting the Third Interim Report of the Sawant Committee and concluding on the basis thereof that the appellants' plot was a forest."

60. These aspects were well within the knowledge of the petitioner/appellant herein inasmuch as they were parties to the proceedings in ***Tata Housing*** *(supra)*. Therefore, they cannot feign ignorance about the reports of the Expert Committees. Also, the appellant, asserting a public cause, cannot be considered unaware of the criteria proposed by the Committee. These criteria as recommended by the Committee were published in the public notice dated 08.02.1997 and have been a subject of agitation by the appellant/petitioner across various forums. Hence, the appellant/petitioner having not raised its little finger to the criteria as prescribed and published in the public notice dated 08.02.1997 is estopped from raising the said issue at this stage. On this short ground itself the appeal has to fail and appellant has to be non-suited. However, in the teeth of contentions having raised with the merits of the case, we do not propose to nip this litigation at the bud but propose to examine the claim on its merits so as to avoid any repetitive litigation in future and ensuring finality in such matters with the object of putting an end to the litigation that has arisen in this regard.

61. The appellants have also made valiant attempts to buttress their arguments with regard to the criteria to be adopted for determination of an area to be declared as forest by relying upon the pronouncement of this Court in ***T.N. Godavarman Thirumulpad Vs. Union of India***[22] by its order dated 26.09.2005 whereunder the concept of NPV was verified to determine economic loss caused on account of deforestation. Hence, we deem it proper to extract the relevant paragraph of the said order and it reads as under: -

"49. *Regarding the parameters for valuation of loss of forest, we may only note as to what is stated by the Ministry of Environment and Forests, Government in its handbook laying down guidelines and clarifications up to June 2004 while considering the grant of approval under Section 2 of the FC Act. Dealing with environmental losses (soil erosion, effect on hydrological cycle, wildlife habitat, microclimate upsetting of ecological balance), the guidelines*

[22] (2006) 1 SCC Page 1.

provide that though technical judgment would be primarily applied in determining the losses, as a thumb rule, the environmental value of one hectare of fully stocked forest (density 1.0) would be taken as Rs 126.74 lakhs to accrue over a period of 50 years. The value will reduce with density, for example, if density is 0.4, the value will work out at Rs 50.696 lakhs. So, if a project which requires deforestation of 1 hectare of forest of density 0.4 gives monetary returns worth over Rs 50.696 lakhs over a period of 50 years, may be considered to give a positive cost-benefit ratio. The figure of assumed environmental value will change if there is an increase in the bank rate; the change will be proportional to percentage increase in the bank rate. Ms Kanchan Chopra, while conducting a case study of Keoladeo National Park in respect of economic valuation of biodiversity at the Institute of Economic Growth, Delhi as a part of the Capacity 21 Project sponsored by UNDP and MoEF, Government of India examined the question as to what kind of values are to be taken into consideration. As per the study, different components of biodiversity system possess different kinds of value : (1) a commodity value (as for instance the value of grass in a park), (2) an amenity value (the recreation value of the park), and/or (3) a moral value (the right of the flora and fauna of the park to exist). It is recognised that it is difficult to value an ecosystem, since it possesses a large number of characteristics, more than just market-oriented ones. It also leads to the need to carry out a biodiversity valuation both in terms of its market linkages and the existence value outside the market as considered relevant by a set of pre-identified stakeholders. It is, however, evident that while working out the biodiversity valuation, it is not trees and the leaves but is much more. Various techniques for valuing biodiversity that have been developed to assess the value of living resources and habitats rich in such resources have been considered by the author for her case study while considering the aspect of value, their nature and stakeholders' interest. Insofar as the value of ecology function in which the stakeholders or scientists, tourists, village residents, non-users, the nature of value is — regulation of water, nutrient cycle, flood control. These instances have been noted to highlight the importance of the biodiversity valuation to protect the

environments. The conclusions and the policy recommendations of the author are:

"Biodiversity valuation has important implications for decisionmaking with respect to alternative uses of land, water and biological resources. Since all value does not get reflected in markets, its valuation also raises methodological problems regarding the kinds of value that are being captured by the particular technique being used. Simultaneously, in the context of a developing country, it is important to evolve methods of management that enable self-financing mechanisms of conservation. This implies that biodiversity value for which a market exists must be taken note of, while simultaneously making sure that the natural capital inherent in biodiversity-rich areas is preserved and values which are crucial for some stakeholders but cannot be expressed in the market are reflected in societal decision-making.

A focus on both the above aspects is necessary. It is important to take note of the nature of market demand for aspects of biodiversity that stakeholders, such as tourists, express a revealed preference for by way of paying a price for it. Simultaneously, it is important to examine the extent to which a convergence or divergence exists between value perceptions of this and other categories of stakeholders. It is in this spirit that two alternative methodologies are used here to arrive at an economic valuation of biodiversity in Keoladeo National Park. The travel-cost methodology captures the market-linked values of tourism and recreation. It throws up the following policy implications:

1. *Keeping in mind the location of the park and the consequent joint product nature of its services, cost incurred locally is a better index of the price paid by tourists. It is found that demand for tourism services is fairly insensitive to price. A redistribution of the benefits and costs of the park through an increase in entry fee would not affect the demand for its services.*
2. *Cross-substitution between different categories of stakeholders can improve the financial management of the wetland. A part of the proceeds can go to the local management. Also, high-income tourists, scientists and even non-users with a stake in preservation can pay for or compensate low-income*

stakeholders for possible loss in welfare due to limits on extraction and use.

3. However, the limit to such a policy is determined by the number of visitors and their possible impact on the health of the wetland. Such a constraint did not appear to be operational in the context of the present park.

Identification and ranking of values of different aspects of biodiversity resources as perceived and expressed by different categories of stakeholders namely scientists, tourists, local villagers and non-users is an important object in the process of valuation. In the KNP study, a fair degree of congruence in respect of ecological function value and livelihood value is discovered to exist in the perceptions of diverse groups. Stakeholders as diverse as scientists, tourists, local villagers and non-users give high rankings to these uses."

It has been so held hereunder that a Committee is to be constituted to formulate base on which NPV could be calculated. It has been further held that the NPV has to be worked out on economic principles.

62. Pursuant to the afore-stated directions by this Court, the Committee so constituted had examined the recommendations of the Central Empowered Committee which was accepted and the NPV rate was fixed for a period of three years. The said Committee classified forest into three types, namely, (i) very dense; (ii) moderately dense and; (iii) open, which was based on the maps prepared by NRSC, Hyderabad. It would be pertinent to note that the appellant is attempting to import the figure of 1 (one) hectare in place of 5 (five) hectares (as indicated in the prescribed criteria by State of Goa) solely on the ground that the NPV cost therein was determined by this Court on per hectare basis. It is relevant to observe that the analogies employed to calculate the forest coverage area, which the appellant is attempting to introduce, may be incongruent and unrelated to the identification or demarcation of forest area. This process necessitates the application of a distinct yardstick. The process of identification has been gone into by the experts as reflected from the *Sawant* Committee report and accepted by this Court in ***Tata Housing*** *(supra)*. Hence, it would not be apt and appropriate for us to sit in the arm chair of the experts and to substitute our opinion or that of the appellants in contrary distinction to the opinion expressed by the experts and as such we refrain from doing so. As a consequence of the same

the contention raised by the appellants cannot be accepted and it deserves to be rejected and accordingly, it stands rejected.

63. In fact, the process of physical demarcation of such forests in the State of Goa seems to have attained finality by virtue of the reports. The Final Report prepared by *Deep Shikha* Committee as also known as Private Forest Review Report identified 46.11 sq. km. of area as private forest which has been accepted by the Tribunal in OA No.479 of 2018 vide Order dated 18.08.2020 and the appeal filed by the State of Goa against the said order in Civil Appeal No.01 of 2021 which has been dismissed by this Court by order dated 01.02.2021. In other words, the issue relating to identification and demarcation of private forests in the State of Goa has attained finality on three criteria as indicated herein *supra* pertaining to forest tree composition, contiguous forest land and minimum area should be 5 (five) hectares and canopy density should not be less than 0.4. In the teeth of the afore-stated facts and the orders passed by the Tribunals as affirmed by this Court, the State of Goa has issued a gazette notification on 22.09.2022 notifying 46.11 sq. km. as private forest.

64. It is also curious to note that on the one hand the appellant has been challenging the criteria adopted by *Sawant* and the *Karapurkar* Committees for identification of private forest land in the State of Goa before this Court and simultaneously has relied upon the said criteria adopted by these Committees before the Tribunal in this regard. The order of the tribunal dated 21.01.2015 rendered in OA No.22 of 2013 (Western Bench) title as ***'Goa Foundation Vs. Union of India and Others***' can be looked up.

65. At the cost of the repetition, it requires to be noticed that appellant is seeking a change in the criteria being followed by State of Goa for identification and demarcation of forest under private ownership or private forest by contending that State should follow the same criteria for identification of forest land as is being used by FSI, Dehradun for describing "forest cover" i.e., all lands more than one hectare area with 10% irrespective of land use, ownership and legal status. This exercise is being carried out by FSI, primarily for assessment of forest and tree cover and monitoring the period change based on satellite remote sensing to:

i. Prepare State of Forest report on State-wise Forest cover biennially, providing assessment of latest forest cover in the country and monitoring changes therein;

ii. Conduct inventory in forest and non-forest areas and develop database on forest tree resources and prepare thematic maps; iii. Support State/UT Forest Departments in forest resources survey, mapping and inventory.

In fact, para 1.3 of the report published by FSI in 2017, the distinction in the term 'Forest Cover' and 'Forest Area' has been stated as under:

"The term "Forest Cover" as used in Indian State of Forest Report refers to all lands more than one hectare in area with a tree canopy of more than 10%, irrespective of land use, ownership and legal status. It may include even orchards, bamboo, palm etc and is assessed through remote sensing. On the other hand, the term 'Recorded Forest Area' or 'Forest Area" refers to all the geographical areas recorded as 'Forests' in government records. Recorded forest area mainly consists of Reserved Forests (RF) and Protected Forests (PF), which have been notified under the provisions of Indian Forest Act, 1927 or its counterpart State Acts. Beside RFs and PFs, the recorded forest area may also include all such areas, which have been recorded as forests in the revenue records or have been constituted so under any state Act or local laws.

Recorded Forest area may have blank areas with tree density less than 10 % such as degraded lands, wetlands, rivers, riverbeds, creeks in mangroves, snow covered areas, glaciers and other snow covered .areas, alpine pastures, cold deserts, grasslands etc. As per the definition of forest cover, such areas are excluded from the assessment of the forest cover. On the other hand, there are areas outside the recorded forests with tree patches of one hectare and more with canopy density above 10%. For example plantations on the private community lands, road, rail and canal sides, rubber, tea and coffee plantations etc. Such areas also constitute forest cover and are li included in the forest cover assessment. "

66. Upon examining the FSI Report, a clear distinction emerges between 'Forest Cover' and 'Recorded Forest Area.' 'Forest Cover' encompasses all lands

exceeding 1 (one) hectare in size with a tree canopy exceeding 10%, regardless of land use, ownership, and legal status. This category may encompass various features like orchards, bamboo groves, palm plantations, etc., and is evaluated through remote sensing techniques. Conversely, the term 'Recorded Forest Area' or 'Forest Area' refers to all geographic areas officially designated as 'Forests' in government records. Recorded forest areas primarily include Reserved Forests (RF) and Protected Forests (PF), which are notified under the provisions of the Indian Forest Act, 1927, or equivalent State Acts. In addition to RFs and PFs, the recorded forest area may also cover regions recorded as forests in revenue records or established as such under any State Act or local laws.

67. The State of Goa is one of the smallest States in the country having geographical area of 3,702 sq. km. As per the India State of Forest Report, 2017 published by FSI, the forest cover of Goa is 2,229 sq. km. which is 60.21% of the total geographical area of the State. It is three times higher than the National Forest Cover which is 21.54%. If the tree cover of the State is included which is 323 sq. km. the total forest and tree cover of Goa works out to be 2,552 sq. km. which is 68.94% of the geographical area of the State. As rightly pointed out by Mr. Kohli, learned Senior Counsel appearing for the State of Goa the change of existing criteria in determining the deemed forest would have a negative impact on the conservation measures being undertaken hitherto and the reasons enumerated in paragraph 15 could support the said contentions. It reads as thus: -

(i) *All open forest area (10% to 40 % canopy density} under private ownership shall be identified as deemed forest in the state of Goa, whereas most of this open forest area is habitation area having trees planted traditionally by the people around. their houses for meeting their daily needs of food, fruits, firewood, small timber, agriculture implement etc.*

(ii) *If a person wants to plant 10 trees preferred by him like Mango, Tamarind, teak, jackfruit, chickoo, kathal, etc in his own land of one hectare for the above mentioned needs it will cross the threshold of 0.1 canopy density and be declared as private forests.*

(iii) *It will be a huge disincentive for the small land owners, whose lands will fall under private forest and they will be compelled to seek approval under FCA, 1980 from the Central Government for every*

parcel of land which may discourage the people of Goa to plant, protect and conserve trees on their lands. Such land owners would lose their right to use their own land for their bona fide needs in view of stringent conditions as laid down in various provisions of the FCA, 1980.

(iv) *This criteria being independent of ownership, will also attract almost all of the government, private office and residential complexes, educational and other institutions since one hectare criteria with 0.1 canopy density will be applicable to the entire state of Goa.*

(v) *The people, who have cleared the forest / trees on their land before 1996, would appear to be in advantageous position in the eyes of private forest owners.*

(vi) *It may give a wrong message to private land holders to not only destroy existing forests/ tree vegetation but there would be no incentive for planting trees or helping in their conservation in ·. view of the restrictions being placed on the usage of their own land.*

(vii) *As per order dated 12.12.1996 passed by this Hon'ble Court in T. N. Godavarman Vs Union of India, W.P No.202/1995, Govt. of Goa initiated the process of identification of private forests in true spirit following the existing criteria. It is being confirmed using satellite imageries and ground verification by a Review Committee at present. These criteria as mentioned in above para number 4 were formulated by State of Goa way back in 1991 based on the High Court of Bombay order in Writ petition No.162/1987, Shivanand Salgaonkar Vs. Tree officer & others. And it has taken almost two decades to identify and demarcate this private forest area on the ground, which is still not complete and is being done presently by the Review Committee. Reducing the criteria to 0.1 Canopy Density and 1 Hectare will again restart the process to bring large number of private lands with few trees under private forests thereby adversely impacting even the small land owners who have protected trees in good spirit.*

(viii) *It will be a huge burden on small land owners (i) to find alternative land for Compensatory Afforestation and (ii) to pay Net Present Value (NPV) for his own small bonafide needs such as extension/ construction of even one room use of even small part of his land,*

and for planting of trees by removal of existing trees on his own land under CA.

(ix) It will put serious pressure on available land for development of the State and bonafide aspirations of its people including conservation imperatives.

(x) In the State of Goa, geographically available land of 3702 Sq. Km has been divided into Eco Zone 1, Eco Zone 2 and Developable Zones, under the Regional Plan Goa 2021 under the Town and Country Planning Act, 1974. In so far as Eco Zone- 1 IS concerned, it comprises Forest (Protected/Reserved/National Park/Wildlife Sanctuaries), Mangrove Forest, identified Private Forests till 2008, Water Bodies/nallas/ponds and paddy fields/khazan lands. Eco Zone 1 constitutes 50.94 % of the geographical area of the State and is completely a 'No Development Zone'. In so far as Eco Zone-2 is concerned, it comprises orchards, natura! cover, cultivable land, salt pans and fish farms/mud flats. Eco Zone-2 constitutes 31.42% of the geographical area of the State where development is restricted to the land use which is completely regulated. Together Eco Zone 1 & 2 constitutes 82.37% of the geographical area of the State leaving behind 17.63% of land as Developable Zones in which also development is regulated and restricted. A copy of the forest cover map of state of Goa as per India State of Forest Report, 2017, FSI Dehradun is annexed hereto and marked as Annexure – B.

State	Description of the Criteria/parameters
Andhra Pradesh and Telangana	All private lands bearing natural tree growth **more than 0.40 density** and having an extent of **10 hectares**, shall be treated as forest subject to the conditions that it should not adversely affect customary rights of 'Tribal Land owners'.

Arunachal Pradesh	Areas recorded as forest in the government records were only treated as forests for the purpose of the FC Act. Expert committee did not formulate any parameter to classify an area as 'forest' by dictionary meaning.
Assam	Minimum forest area of **Ten hectare** and more under private ownership were treated as 'forest' by dictionary meaning.
Chhattisgarh and Madhya Pradesh	A patch of land irrespective of their ownership will be deemed as 'forest' if (a) Its area is not less than **10 hectares**.

68. It is necessary to mention at this juncture, the application of criteria cannot be universally standardized across the country, as it is contingent upon the specific geography and geographical conditions prevalent in each State. Each State possesses its distinctive geographical features, and as a result, the criteria may vary from one State to another. In this regard, it would be apt to consider the criteria/parameters formulated by various States to identify the private forest as indicated in the affidavit filed on behalf of the respondent No.
1, 4 to 8 dated 07.05.2019 are as under:

	(b) It is covered with naturally growing timber, fuel wood and yielding trees. (c) Average number of trees standing on it is **200 or more tree per hectare**.
Goa	A patch of land irrespective of their ownership will be deemed as forest if a. 75% of the crop composition of such lands should be of from forest species and b. Area should be either be contiguous to Government Forest land or in isolation the minimum area so identified should be **5 hectares**. In case of mangroves, area less than 5 hectares is also considered a forest whether or not in contiguity to Government Forest land. c. Minimum **0.40** canopy density.

Himachal Pradesh	Compact blocks of wooded land above **5 ha** in extent.
Karnataka	a. Government land parcels with area of **2 hectares** and above, minimum density 50 naturally grown trees per hectares of girth at breast height 30 cm and above b. Block plantations on Government lands with area of 2 hectares and above having minimum density of 100 planted trees per hectares of 30 cm and above girth at breast height and c. Private lands with area of **5 hectares** & above, minimum density of 50 naturally grown trees per hectares of 30 centimetres and above girth at breast height.
Maharashtra	Following parameters were followed a. An area which falls under the definition of word 'forest' and b. All the mangroves shall be treated as 'forest'
Meghalaya	An area would be 'forest' if it is a compact or continuous tract of minimum **4 hectares** land, irrespective of ownership, and where-
	a. More than **250** naturally growing trees per hectare of 15 cm and highest diameter at breast height (DBH) over bark are present or b. More than 100 naturally growing bamboos clumps per hectare are present in case of the tracts containing predominantly sympodial bamboo.
Odisha	Those areas which are **5 hectares** or more in extent in one continuous patch of private land covered with plantations and/or natural growth.
Rajasthan	Area not less than **5 hectares** and having not less than **200 plants** per hectare were treated as 'forest' by dictionary meaning.

Sikkim	Contiguous patch of minimum **10 hectares** area having more than **0.40 crown density** were treated as 'Forest' by dictionary meaning.
Uttar Pradesh	Minimum **3 hectares** area with minimum **100 trees** per hectare in Vindhya & Bundelkhand region and minimum **2 hectares** area with minimum 50 trees in Terai & Plain areas were treated as 'Forest' by dictionary meaning, subject to the following conditions; a. Trees means naturally grown perennial trees b. Shrubs will not be counted among trees c. Minimum area of land will be based on gata-wise d. In case of private land, in case a gata is registered in name of several persons in the form of minjumula, then area of each minjumula will be considered for area limit. e. Plantations raised on government and private land will not be considered as forest.
West Bengal	Compact patches of minimum **1 hectare** area having minimum crown density of **0.40** were treated as 'forest' by dictionary meaning.
Dadra & Nagar Haveli	Private/Government areas with minimum **5 hectares** or more having tree vegetation with species variations and required stocking area to be treated as 'forest' by dictionary meaning.

69. In view of the above, we summarise our discussion as under:

(i) *Firstly,* the existing criteria for identification of private forests in the State of Goa are adequate and valid, hence, they require no alteration. The Ministry of Environment, Forest & Climate Change guidelines, as well as the Scheduled Tribes & other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, are clear and unambiguous, as they have exempted the application of the Forest Conservation Act, 1980, on areas that are less than 1 hectare and where not more than 75 trees have to be cut. Reference can

be made to the communication dated 03.01.2005 of MoEF. Further, it can be noticed if the criteria i.e., the canopy density of 0.4 and minimum area of 5 ha is reduced to 0.1 and 1 ha as contended, respectively, it will result in the plantations of coconut, orchards, bamboo, palm, supari, cashew, etc., grown by farmers on their private lands into the category of 'private forest'. The effect would be that even for a minor development on the concerned land, the permission of the Government under the FCA 1980, for the landholders, would become indispensable. It would be of necessity to note that none of the States have adopted the criteria proposed by the appellant, namely the 0.1 density criteria, as it would result in opening a pandora's box, and it would result in all the States undertaking the task of reassessing the forest area all over again which has since been settled on the basis of existing criteria.

(ii) *Secondly*, it has been noticed that appellant is attempting to take a contrary stand on the issue of criteria for the identification of forests, namely, suggesting a change in criteria for the identification of deemed forests under private ownership. On the one hand, the appellant is challenging the criteria adopted by the *Sawant* and *Karapurkar* Committees for the identification of *inter alia* private forests and on the other hand has relied on the same criteria adopted by these two committees for the identification of forests, including private forests, before the Tribunal, as has been observed by the Tribunal in its judgement rendered in O.A. No.22 of 2013 on 22/01/2015 in the matter of ***Goa Foundation v Union of India & Others*** and in O.A. No.479 of 2018 in the matter of ***Goa Foundation v State of Goa & Others***. Thus, appellant cannot be permitted to approbate and reprobate. The appellant has also failed in its endeavour to have the second interim report of the *Sawant* Committee and the criteria laid down thereunder to be revisited in ***Tata Housing* (*supra*)** and before the Tribunal in ***Nisarga* (*supra*)**. In fact, appellant and another NGO had argued before the Tribunal in ***Nisarga* (*supra*)** that the criteria ought to be 10% canopy density, which did not find favour with the Tribunal in the teeth of ***Tata Housing (supra)***, and said order passed in ***Nisarga*** (O.A. No.19 of 2013) has attained finality.

(iii) *Thirdly,* this Court vide its order dated 12.12.1996 had expressly delegated the task of identifying forest areas to Expert Committees to be constituted by State Governments, thereby recognising that there can be no uniform criteria for such identification across the country.

70. In light of the above conclusion, we are of considered view that the present appeals would not merit acceptance and accordingly same

stand rejected and the impugned order dated 30.07.2014 is upheld. Consequently, the interim order dated 04.02.2015 passed in I.A. No.3845 of 2015 in WP No.202 of 1995 is vacated. I.A. No.40261 of 2017 filed by Respondent No.1 and I.A. No.116496 of 2022 filed by the impleading party (CREDAI), are allowed. We also place on record the valuable assistance rendered by Mr. K. Parameshwar as *Amicus Curiae.*

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