

**Report
Of the
Expert Committee
On
Net Present Value
(Professor Kanchan Chopra Committee)**

**Submitted to the
Honourable Supreme Court of India
May, 2006**

Report of the Expert Committee on Net Present Value

Chairperson: Professor Kanchan Chopra, Director
Institute of Economic Growth, Delhi

Members: Shri V.B. Eswaran, Former Secretary to the
Government of India

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I Preliminary

1.1 Constitution of Committee

In pursuance of Supreme Court judgement dated September 26, 2005 in IA NO. 826 in IA No. 566 of 2000 in Writ Petition (Civil) 202 of 1995, the Institute of Economic Growth, Delhi was asked to constitute a Three Member Expert Committee, under the Chairpersonship of Prof. Kanchan Chopra, Director and Professor at the Institute of Economic Growth, Delhi.

The other two Members of the Committee are:

Prof. Gopal K. Kadekodi, Director, Institute for Social and Economic Change, Bangalore.

Shri V.B. Eswaran, Former Secretary to the Government of India.

At the request of the Committee, the Honourable supreme Court granted permission to appoint Dr. Purnamita Dasgupta, Associate Professor at Institute of Economic Growth as the Member Secretary of the Committee.

The Institute of Economic Growth provided the Committee with logistic and administrative support.

The Apex Court allowed the Committee time till 30th April 2006 to submit its report.

1.2 The Mandate and Terms of Reference for the Expert Committee

The basic issue as mandated by the Supreme Court for the Committee is that the Net Present Value (NPV) for forest land diverted for non-forest use has to be worked out on economic principles.

Further, the Honourable Court observed on NPV in its Judgement of September 26, 2005 that “the amounts are required to be used for achieving ecological plans, and for the regeneration of forest and maintenance of ecological balance and eco-system. The payment of NPV is for protection of the environment and not in relation to any proprietary rights”.

The Honourable Court therefore directed that the Committee would examine the following issues:

- 1. 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*
- 2. To formulate a practical methodology applicable to different bio-geographical zones of India for estimation of the values in monetary terms in respect of each of the above categories of forest values*
- 3. To illustratively apply this methodology to obtain actual numerical values for different forest types for each biogeographical zone of the country*

4. *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 forest.*
5. *Which projects deserve to be exempted from payment of NPV*

1.3 Methods and Procedures followed by Committee:

The Committee followed the following methods and procedures for its deliberations towards the mandate assigned to it.

1. Regional Hearings held in different places all over the country with proper public announcements in media, public offices and through direct communications to various stakeholders. The Committee decided to have regional hearings (at Delhi, Bangalore, Guwahati, Ahmedabad and Bhubaneswar) so as to make it convenient for various stakeholders including government departments, representatives of industry, civil society organizations and individuals to meet the Committee and place their views before it;
2. Consultations with Ecologist, Foresters, Legal Experts on the relevant parameters, definitions and Methodology of Forest Valuation including at a one-day seminar;
3. Information sought from Ministry of Environment and Forests (MoEF) on definition of forest and forest lands, activitywise conversion of forest lands, NPV collected by Compensatory Afforestation Management and Planning Authority (CAMPA), compensatory afforestation charges collected;
4. Submissions from various stakeholders including from MoEF.

Appendices 1,2 and 3 contain the details of stakeholders who made submissions and addressed the Committee in the regional Public Hearings, and experts who participated in the seminar held at the Institute of Economic Growth (IEG) on March 20, 2006.

2. Introduction and Definitions

2.1. Introduction

Forest resources represent a stock of natural capital or wealth with attributes such as growing biomass including wood, carbon, and capability to support human, plant and animal life. They are renewable in nature. As a stock of natural capital they provide several goods and eco-system services. Left to themselves forests regenerate. They can also be augmented or depleted with human and other interferences. If so, this results in a change in the flow of goods and services from them. Examples of such goods and services flowing from forest resources are : tree cover provides leaf biomass (as food, shelter, fodder, fuel), barks, roots, herbs, or sequestered carbon, and health of water regimes and soils. Since forest lands are fundamentally responsible for maintaining forest resources and generation of goods and services, **they are not to be treated as tradable**. Hence, there is **no question of bargaining on the best alternative use of forest lands**. Therefore, NPV calculation on forest lands are not to be based on assumptions regarding

alternatives uses of the same lands, say for urban housing, mining, putting up a dam, road, etc. They are of the nature of estimating value lost to be reckoned as an “opportunity cost” of forest tracts.

In the context of economic and social development, it may be necessary to divert some forest lands to non-forest use. Payments made for this diversion are compensations for the loss of forest and the loss of the flow of goods and services accruing from it to diverse stakeholders.

2.2 Definitions

2.2.1 Of Forests, Forest Land and Forest Cover

The dictionary definitions of ‘forests’ vary considerably. Some examples are “a tract of land occupied mainly by trees” or “a continuous and extensive tract of trees” or “a dense growth of trees and under-brush covering a large tract” (Meriam Webster 11th Collegiate Dictionary).

Further, to quote The State of Forest Report (SFR) 2003¹, there is no universally accepted technical definition of forest. FAO of the United Nations defines forest land as “that having tree canopy cover of more than 10% over an area of more than 0.5 hectares with forestry as the principal land use”. It has come to the Committee’s knowledge that recently MoEF has invited ‘expression of interest’ to study to establish definition of FORESTS in the Indian context.

In the Indian context, several anomalies exist on the definition. A tract of land is recognized as forest land, if it is legally proclaimed to be a forest under the forest law (Indian Forest Act [IFA] of 1927 or the relevant state forest act) and it is recorded and notified as forest in government records. It is possible that, at any point of time, a part or whole of such forest area may not have any trees on it. In its assessment of Forest cover, the SFR 2003 records it as “blanks” and classified as non-forests. Its assessment gives estimates of “recorded forest area.” To quote “FSI² has used technology based definitions of forest cover and tree cover.....Allk tree canopies that could be delineated and assessed from satellite data (LISS III of IRS satellite IC/ID) is termed as forest cover.... The area under canopy of all other tree crops not captured by satellite data is termed as tree cover....’ It may be noted in going through State of Forest Reports that “forest cover” implies “forest and tree cover (satellite)” and “tree cover” menas “other forest and tree cover (inventory)”

This report takes the view that, in the context of diversion of forest land for non-forestry use, *the methodology outlined in Part 3 be used to:*

- a) *Determine forest area, including its subcategories in terms of land use on a case by case basis using the FAO definition in the main. i.e. “as that having tree canopy cover of more than 10% over an area of more than 0.5 hectares with forestry as the principal land use”.*

¹ State of Forest Report 2003, Forest Survey of India, Ministry of Environment and Forest.

² Forest Survey of India

- b) *Further the rights, privileges and concessions on so determined forest area be also determined on a case by case site specific manner.*
- c) *Payments for diversion of forest area in terms of compensation and their accrual then be determined in a site and context specific manner, using the above mentioned methodology.*

The Committee noted that SFR 2003 maintains that such an exercise is feasible for small tracts of land using different data sources.

2.2.2. Of Forest Eco-system Goods and Services:

These are of four kinds that forests provide:

1. Provisioning goods such as wood, non-timber forest products (NTFP), fuel, fodder, water and provision of services such as grazing, tourism, wildlife protection and life support
2. Regulating Services: climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils and water regimes
3. Non-material benefits obtained from ecosystems: spiritual, recreational, aesthetic, inspirational, educational, communal, symbolic.
4. Supporting: Services necessary for the production of all other ecosystem services: Biodiversity, Nutrient cycling, Primary production.
5. (Modified from Millennium Ecosystem Assessment 2005)³

2.2.3 Of Non-Forest Activity:

The definition of non-forestry activity in this report is as per the Forest Conservation Act (FCA) 1980. However it is noted that :

- ◆ Shifting Cultivation is a special category of agro-forestry activity which is not a non-forest activity
- ◆ All the necessary ecological activities associated with forestry should not be charged NPV when the area is diverted to non-forest use. E.g. removal of silt and scree to ensure proper and adequate stream flows.
- ◆ A distinction is to be made between an activity which alters the nature of vegetation as against that which does not e.g. note for instance the examples of laying of fibre optics cable

2.2.4 Of Land to which NPV and other Permissible Payments are Applicable:

In general, NPV and related payments (such as ground rent) are payable on forest area as defined in Part 2.2.1 when diverted for non-forest use. However, in view of the variety of

³ Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being : Our Human Planet, Summary for Decision-Makers, Island Press, Washington, D.C.

presentations and submissions, the Committee wishes to clarify with some examples given below:

1. Such payments are payable only for forest area under the ownership and management of forest department.
2. Such payments are not applicable to land which has not been finally notified as forest land after the preliminary stage of a Section 4 notification under Indian Forest Act 1927.
3. No permission for non-forest use can be given to certain kinds of areas such as: Protected Areas (PAs), Sacred Groves, Fragile Ecosystems (e.g. mangroves)
4. Land left fallow in the “jhum” cycle on which some vegetative cover has emerged does not attract such charges because it is part of principle land use category “agriculture” not “forestry” as per the FAO definition.
5. Land leased to private and public enterprises/industry before 30-10-2002 (as per MoEF Guidelines for collection of NPV dated September 17/18 and 19/22, 2003) and which comes up for renewal of lease attracts both NPV and ground rent.
6. Lease Renewals after 30-10-2002 and not having paid NPV so far: To pay NPV on that portion of forest land originally leased and to be cleared of forests now, leaving out lands not to be cleared (of forests) during the present renewal period, provided the lease was given prior to 30-10-2002.
7. Payments are chargeable on all fresh leases.
8. Land exchanged: If the Forest department itself asks or initiates a move to exchange an originally leased land prior to 30-10-2002 to be exchanged, such exchanges do not come under the purview of NPV.

2.2.5. Of Stakeholders/Users with Reference to Forest land Diversion

1. Stakeholders in forests are the entities or groups who are losers due to a change in access to forests and their ecosystem goods and services: may be local, regional, national or global. They are the claimants to compensation arising out of the loss of access to eco-system goods or services.
2. User Agencies are those who pay an NPV and use the forest lands for non-forest purposes. Note that the payment of NPV by any agency confers a user right to the user agency for a limited period. It does not give an ownership, proprietary or perpetual right.
3. The grant of permission for non-forest use right is not unconditional.

2.2.6 Of Rights, Privileges and Concessions

There exists a legal hierarchy in the different claims that stakeholders have. A right holder with recorded rights is highest in this hierarchy. Next come persons or communities with a privilege. The provisions of the FCA 1980 "do not interfere with the recorded rights and privileges over forests for domestic use, provided they do not resort to destruction of forest land".

A stakeholder or a community who is given "concessions" does not have any legal right. There always exist differences in perception of stakeholders about their claims and this leads to

contestation.

2.2.7 Of Public Sector, Public Good and Public Utilities and Services

ON PUBLIC GOOD: The user of diverted land may also be a public good producer or provider. As long as the diversion to any public good provision also provides the same kinds of services as forests provide at the same location, (e.g., carbon sequestration, retention of soil moisture, protection of biodiversity etc.) such diversions do not attract any NPV. Other diversions by public good producers do. For example, *possible diversion of forest land to construction of highways should attract NPV*. Highways change the forest cover entirely and permanently. Therefore all public good producers or providers cannot claim unconditional exemptions from paying NPV.

ON PUBLIC SECTOR: Public sectors may be producing or providing both public and private goods and services. Examples of commercial goods and services provided by public sector are coal, minerals, hotel and tourism services etc. Examples of public sectors providing public goods are public parks by municipalities, sanctuaries and national parks by Wildlife Authorities. Only such public sectors that provide public goods and services of the type mentioned above can be considered for some exemptions from NPV.

ON PUBLIC UTILITIES/SERVICES: Public utilities are provided by both public and private sectors. Therefore, they are to be viewed in terms of their production and services only, and not as public or private sector.

As against a blanket claim on exemptions from NPV, the public or private sector or public utilities should show evidence of providing distinct forest resource related goods and services at the same location. To that extent, the forests diverted under question can be considered for exemption from charging full NPV.

3. Estimation of NPV and Determination of Claims to Value: 3.1 Methodology

NPV refers to "the discounted sum of rupee values of eco-system goods and services that would flow from a forest over a period of time net of costs incurred." It does not capture the value of the forest wealth or possible change in it, only the flow of goods and services. In the context of diversion of forest land to non forestry use, ***NPV will then mean, the loss of value of the forest resources (as viewed above) to the stakeholders or the users as at the time of diversion for non-forest use. It does not refer to the value either accrued or created by the user agency who uses it as non-forest use. Further,***

- It includes services and goods accruing to all the stakeholders associated with it as defined in Part 2.2.5.
- All values should be net of any costs associated with them in maintaining, creating, fetching, collecting or enjoying them (following on the concept of opportunity cost)
- In the *estimation* of NPV, there is no question of taking account of the positive contribution to society by the user agency (as a non-forest user), say as a social and

economic contribution, or contribution to national wealth or benefits, e.g., defense, hydel or wind energy projects, national roads, or rural roads.

3.2 Site Specificity of NPV of Forest Land and the Claims Thereon.

The Committee holds the view that a distinction is to be made between Estimation of NPV and Claims for exemption (fully or partially) by the User agency.

Further, the Committee is of the considered opinion that the ***NPV of a tract of forest and the claims by the stakeholders existing thereon are to be entirely site specific***. It recommends therefore that whenever a tract of forest land is to be diverted to non-forest use, the following process should be undertaken at the range level:

Determine the value of NPV and the nature of rights, privileges and concessions of stakeholders on it be established and recorded. Simultaneously, public hearings be organized to apprise all parties concerned of the intention to divert forest for non-forest use. This may be carried out on the lines of the procedure for Environmental Impact Assessments laid down under the Environmental Protection Act.

3.3 Procedural Steps

The Committee recommends the following steps for determining the value of NPV of forest and claims by the stakeholders on it at forest range level. The SFR(2003) maintains that such an exercise is feasible using different sources of data at the range level.

A detailed illustrative circle wise exercise was conducted (at the IEG) for the state of Himachal Pradesh to illustrate the site-specific nature of the NPV for forest land. This exercise is carried out only for areas other than protected areas (national parks and wild life sanctuaries). *It is to be noted from this illustrative case study that the value of a hectare of forest land in Himachal Pradesh varies from Rs 8.57 lakhs for dense natural forest in Bilaspur circle to Rs. 1.57 lakhs for timber plantations in Nahan circle.*

Step 1: *Only lands defined in Part 2 above as forests fall within the purview of this exercise. Taking into account the bio-physical, ecological and legal status, the first step is to ascertain if this land falls in the category of forest or not.*

Step 2: *Ask if the area proposed to be diverted contains a tract which falls within the legal definition of "Protected Areas". If so, in the view of the Committee, that part cannot be considered for diversion at all, under any circumstances,*

Step 3. *List the following for the area under consideration:*

- ◆ Kind of forest as per classification of Champion and Seth⁴
- ◆ Density cover as per-SFR 2003

⁴ Champion. H. G. and S. K. Seth, "A Revised Survey of the Forest Types of India," Publication Division, Government of India, Delhi. 1968.

- ◆ Main species of trees and under story
- ◆ Altitude, slope and aspect of forest
- ◆ Soil depths, streams and water bodies

Step 4. *From the above parameters, divide the area to be diverted into the following forest land use categories:*

- ◆ Dense Natural Forest
- ◆ Lopped Dense Forest
- ◆ Open Tree Savannah
- ◆ Monoculture Plantations
- ◆ Mangroves and Coastal forests
- ◆ Snow-bound Forests

Step 5. *The following products (and services from the land being diverted to be valued using the methodology given below:*

Table 1: Towards computation of NPV

Good or Service	Annual Value	Annual Costs
Timber	*Long run Stumpage value approach *Stumpage price of mature timber	Costs of production (departmental), extraction and transport
Carbon Storage Value	Value of carbon stock = carbon content X market rate of carbon Carbon content= Biomass X IPCC-GPG default value ⁵ Biomass = Growing Stock X Conversion factor	No direct costs. See Step 6 for common indirect costs
Fuel wood and fodder*.	Total value of fuel wood collected in a normal year = No. Of rural households collecting fuel wood from forest in last 365 days X average value of collection per collecting household. (the value to be used is the relevant price in the nearest local market)	Cost of collecting fuelwood = (No. of rural households) x (Total annual time cost of collection per household valued at 15% of average agricultural wage rate).
Non Timber Forest Products (including grass)	Per hectare value of NTFP collected in each circle = Value of NTFP in each circle / Net forest area in each circle	Cost of collecting NTFP = (No. of rural households) X (Total annual time cost of collection per household valued at 15% of

⁵ Intergovernmental Panel on Climate Change - Good Practice Guidance, 2003.

	Value of NTFP in each circle = Value of NTFP collected in a normal year per household X Circle-wise rural households (the value to be used is the relevant price in the nearest local market)	average agricultural wage rate).
Ecotourism	Per hec. value of Eco-tourism in each circle = Total value of Ecotourism in each circle/Net forest area in each circle. Value of Eco-tourism dependent on forest ecosystems = No. of people visiting different circles per year mainly due to natural beauty X average expenditure incurred per person	Costs incurred by the Forest Department in the maintenance, preservation and development of national parks and wildlife sanctuaries. The per hectare cost were calculated. to arrive at cost for each circle. See Step 6 for common departmental costs
Watershed services	Value per hectare for soil conservation and hydrological services from secondary site-specific studies	As per site specific secondary studies

*Note: The value for fodder would be calculated in the same manner as for fuelwood.

Step 6: *Account for Forest Departmental costs* - These include certain costs that cannot be apportioned across different goods and services within each range including costs incurred in construction and maintenance activities and expenditure on wages and salaries. These have to be deducted from the total benefit to arrive at net benefit for the range.

Step 7: *Calculate annual value of goods and services accruing to categories of forests listed in Step 4. Use percentage accruals from Table 13 of Appendix 4.*

Step 8: *Calculate NPV as present value of the net flow accruing over 20 years at 5% social rate of discount. Considering the fact that forest resources provide long term goods and services and ecosystem benefits and, interest rates in India are going down, the Committee recommends a 5% social discount rate for forest resources. The time horizon for NPV calculations is recommended to be 20 years, considering the plausible mix of species and their different maturity periods.*

Step 9 *Account for biodiversity related services at the range level based on relative weighting pattern between biodiversity and other goods and services.*

The Committee recommends that NPV be revised every five years, keeping in line with the pace of change in flows of goods and services from forests

Step 10. *Determine legal status of forests and rights, concessions and privileges of stakeholders.*

MoEF guidelines state that the provisions of the Forest Conservation Act do not interfere in any manner with or restrict the Nistar, recorded rights, concessions and privileges of the local people for bona fide domestic use as granted by the state governments under IFA 1927 or State Forest Acts/ regulations, for all non-protected areas (even after the Supreme Court judgment of 2000 which restricts them in PAs). Since this method of NPV computation is for non-protected areas, the following steps are recommended.

Ascertain legal status of land to be diverted in accordance with site specific categories and determine rights, privileges and concession there-on. Categories of stakeholders to whom these accrue be also identified. There is wide variation even within the state. These are recommended to be identified at the range level.

Step 11: Settle rights, privileges and concessions of stakeholders The diversion of forest land for non-forestry purposes is preceded by inquiry and recording of rights, privileges and concessions of all stakeholders. After the demarcation and completion of record, the District Collector will issue a proclamation inviting claims and objections of the right holders pertaining to their rights in the said forests. After the expiry of the stipulated period, the Collector shall hold an enquiry into the rights of government and private persons at a place, which is in or close to the concerned forest. This process shall determine the rights and claims of all stakeholders. It shall also take account of special privileges and concessions, including those accorded to communities in Schedule V and VI areas.

Steps 1 to 11 complete the range level calculation of NPV and the listing of the claims of all relevant stakeholder for forests to be diverted for non-forest use.

Step 12: Determination of Compensation to major stakeholder - locals, state forest departments and central government can then be determined as per predetermined norms.

A general principle for sharing the NPV between different stakeholders is recommended as follows

Local- 100 % of NTFP, fuel wood and fodder values; 50 % of watershed services and 45% of biodiversity values

State- 100% of eco-tourism and timber values, 50% of watershed services, 90% of carbon and 45% of biodiversity values.

National — 10% of biodiversity and 10% of carbon values.

4. Operationalisation of NPV Application and Payment (Including Exemption Levels)

4.1 Components of full payment

As stated in Part 3, diversion of forests (as defined in Part 2) for non-forestry activity is only permissible in other than legally constituted protected areas. *No land comprising a part of protected areas shall be diverted to non-forestry use.*

The full compensation for the diversion of forest land (other than protected areas) for non-forest purposes consists of :

- 1. Chargeable NPV estimated on a site-specific basis as determined by the methodology of Part 3.*
- 2. Ground rent for the land as approximated by prevailing rents in the region, subject to a minimum of Rs. 10, 000/- per hectare*

Once these two charges are intimated to the User agency as per procedure and amounts given below, payment for the services of land and compensation for the loss of good and services due to land use changes are to be made as recommended in Part 4.2

There is no need for any additional/ other payment such as those related to compensatory afforestation, or charging for Compensatory Afforestation or any other rental. The Committee is of the view that all such additional charges will, in general, amount to double counting/taxation, to be avoided under principles of Public Finance.

When the diversion to non-forestry use takes place, the natural capital in the shape of forest may be destroyed partly or wholly. Prior to the lease of land, the User agency shall provide a statement on the extent of changes in the forest cover expected to be maintained on the diverted land. If there is reason to believe (during the initial and five yearly reassessment of NPV) that the diversion to non forest use has led to deterioration in the condition of the forest beyond the stated changes, an additional payment by way of Compensatory Afforestation shall be imposed.

Further, a case can be made for exemption from payment of full chargeable NPV on the basis of principles of ecological economics as given below.

4.2 Principles for granting exemption and levels of exemption

A large number of presentations during the public hearings provided data and information to the Committee on a range of development projects that need the diversion of land with forest cover. The Committee, *keeping in mind the following general guidelines, recommends exemption levels as per Table 2 for user agencies undertaking different categories of development projects.*

1. Non-commercial rural infrastructure related projects should be given some consideration.
2. The User's contribution to the process of forest protection, promotion, preservation, conservation, reversibility or arresting natural disasters, calamities, or increasing the resilience power of nature, or reducing impact of irreversibility: e.g., flood moderation, soil conservation etc., be recognized.
3. Long term versus short term environmental impacts be examined : e.g., top soil removal, which is a long term loss, different from slash and burn which is a part of legitimate agricultural activity and does not cause long term changes in status of land.
4. Projects with more than 50% additional capital cost burden on account of NPV be given some consideration.
5. Legitimate ecological activity which is a part of forest management and necessary for maintaining river flows should be given some consideration.

6. Handing back of land: If part or all of originally leased forest land is handed over back to forest department, say after carrying out catchment area treatment, due consideration on this should be given.
7. Likewise, land required for relocation of people from parks and sanctuaries should be treated preferentially.

Table 2: Levels of Exemption from Chargeable NPV payable activity-wise

List of Activities/Projects	Exemption Levels for NPV (as percentage of full chargeable NPV)	Remarks
Public Works: schools, hospitals, children play grounds (non-commercial)	Full exemption: 100%	Only up to 2 hectares
Public Welfare Projects: Community centers in rural areas	Full exemption; 100%	Only up to 2 hectares
Minor Minerals and Quarrying	No exemption:	To be charged only for proportion of land broken in accordance with pre-submitted mine plan
Mining: Open cast mining	No exemption	To be charged only for proportion of land broken in accordance with pre-submitted mine plan
Mining: Under ground mining	No exemption	charge only for impacted area for area which is likely to experience strain greater than 10 mm per meter
Water Resources Projects		
Irrigation: Minor surface water run-of river schemes and water harvesting	Full exemption	Up to 10 hectares of storage area
Major Irrigation and Hydel Power	30% exemption	Exemption due to consideration as in 4.2 above No diversion of land from protected areas and national parks;
Municipal Water Supply	Full exemption	
Drinking Water Supply Pipelines through Forest Area	Full exemption	
Rural Infrastructure and Basic services: construction of overhead tanks, village road etc.	Full exemption	
Relocation of Villages from Sanctuaries/ National Park	Full exemption:	Provided R& R is provided for appropriately
Housing for rehabilitation of tribals	Full Exemption	

Activities necessary for Ecological Management or Wildlife Management	Full Exemption	
Regularisation of eligible encroachments (Pre 1980)	Full Exemption	
Regularization of encroachment other than pre 1980	No Exemption	
Overhead Power Transmission lines	Full exemption	Forest protection to be ensured with bank guarantee
Thermal Power plants	No exemption	
Laying of underground fibre optic cables	Full exemption	
Laying of pipelines for underground gas transportation (ie. IOC)	Full exemption	
Non-conventional energy	50% exemption	
Infrastructure for temples and religious centers.	No exemption	
State Highways	No exemption	
National Highways	No Exemption	
District and Rural roads	Full exemption	With care taken to ensure appropriate, non-invasive technology
Shifting Cultivation	Full exemption	This is not a non-forestry use
Salt Manufacture	No exemption if converted from mangroves post 30.10.2002	
Defence: land for Defence Production Units	No exemption	These are ordnance factories etc
Defence: Field firing ranges	30% exemption	Restoration of entire area to prior status to be ensured
Defence: Roads in border areas	(a) Full exemption if outside Protected Areas (b).No exemption if within PAs	Avoid passing through protected areas
Cement	No exemption	
Steel	No exemption	
Wind Energy	90% exemption	Forest Protection be assured with a bank guarantee
Chemicals	No exemption	
Special Export Zone Projects	No exemption	Commercial ventures

Note: All projects will pay ground rent as indicated earlier irrespective of exemption levels with respect to NPV

4.3 Payment of Charges under NPV and Land Rent

Several representations were made on adverse and high implications of NPV on projects at the start of the projects, and social implications of not having projects. The issue becomes relevant in such cases where they are nationally and socially relevant and large land intensive projects. Examples are coal or other major mineral mining, water resource related projects (reservoirs, canals etc.). After due consideration and deliberation on all aspects, the Committee recommends as follows:

1. Payment of ground rent in all cases shall be made at the outset of the project
2. If any project has proven reasons to deliver the project outcomes after 5 years from initiation, the project may be granted permission to make payment of NPV in more than one installments (every five years on production of a bank guarantee)
3. Public utility projects may be granted permission to pay NPV on annual basis based on a bank guarantee
4. Projects with burden of NPV more than 50% of initial project capital costs may be granted permission for payment on an annual basis with a Bank guarantee.

For the above purpose, a calculation of annuity and five yearly payments corresponding to the one time NPV compensation for diversion of land with forest area may be made.

5. Management of the NPV and Land Rent Fund Collected

The NPV payment is "a compensation payable to stakeholder for diverting forest land to non-forest uses". At present, it is to be paid by the user agency into a centralized fund called "CAMPA"

The CAMPA has been created by the Government of India 's Ministry of Environment and Forests, in exercise of the powers conferred by Section 3(3) of the Environment (Protection) Act of 1986. It issued a notification on April 23, 2004, constituting the CAMPA for managing the money received on account of compensatory afforestation, NPV and any other money recoverable in pursuance of the Supreme Court of India's order in this regard and in compliance of the conditions stipulated by the Government of India while according approval under the Forest (Conservation) Act of 1980 for non-forestry uses of the forest land.

It is understood that whenever a permission is granted by the Government of India to use forest land for non-forest purposes, the permission is not unconditional. Quoting from the Supreme Court's judgment of September 2005, "The Court held the notion that the public has a right to expect certain lands and natural areas to retain their natural characteristics. The Court upheld the applicability of public trust doctrine and held that it was founded on the doctrine that certain common properties were held by the government in trusteeship for the free and unimpeded use of the public." Further the Order went on to say, " It is held that our legal system includes the public trust doctrine as part of its jurisprudence."

The present Committee agrees with the learned Court and carries the argument further. It opines that one condition linked to the diversion of forest land for non-forest purposes is as follows: *that NPV as Compensation be paid to existing stakeholders for the loss of their rights to the services that this forest earlier provided to them, and towards the fundamental eco-system values, services that forests provide. It is therefore imperative to ensure a division of the total NPV among the stakeholders concerned.*

There is an underlying basic assumption behind the operations of CAMPA at present: the environmental benefits are purely public benefits at the national level and are therefore amenable to be compensated for through a centralized, national body like CAMPA. This assumption ignores the actual dynamics of environmental benefits from forests and the fundamental rule of natural justice, which says that those who lose from an activity should be compensated for the loss on a site specific basis and on time. At the same time, the critical dependence of the livelihoods, subsistence and environmental services associated with millions of Indian citizens living in and close to forests are not taken into account, and the losses that they suffer on account of forest diversion are ignored in the current framework. The maximum impact of forest diversion is on local populations, which live near and depend on forests. The impact is even more serious where tribal populations, scheduled castes and landless are affected as forests provide a substantial chunk of their livelihood and subsistence.

The Committee noted:

- a) the three tier system of governance viz. the Central, State and local level institutions (Panchayati Raj Institutions) in the country at present and,
- b) the methodology of Part 3 which can be used to separate out the loss to the three kinds of stakeholders

Principles of public finance and natural justice indicate that any fund created as a Special Purpose Vehicle for collection of NPV or any other compensation should ensure speedy and least cost payment of compensation to the different kinds of stakeholders. There exists extensive documentation of the delays in allocation and use of plan and non-plan outlays on the forestry sector. Funds collected under CAMPA are also underutilized, partly due to the sheer cumbersome nature of processes involved. *In sum, the ill-effects and huge administrative costs of distributing centralized funds point towards the imperative for setting up a process for ensuring appropriate division of the "NPV fund" between tiers of governance, local, state and central.*

It has come to the knowledge of the Committee that till date no part of the CAMPA collections were distributed either to the states or other stakeholders, while as much as 5,73.164 hectares of forest lands have been converted during the period from 01.01.2001 to 19.04.2006 as per information provided by the Ministry of Environment and Forests,

Therefore, a process such as the following is recommended by the Committee for amounts collected as NPV and as ground rent.

Amounts collected in lieu of NPV and other charges are to be divided *as per methodology and process described in part 3 above between those accruing to local, state and national level stakeholders.*

1. Amounts accruing as compensation to local level stakeholders are to be deposited in a fund called the **Local Forest Fund**, to be administered by the District Collector, with due authorization by the state. The District collector shall be responsible for transfer of the Fund to the following institutions in areas where diversion of forests for non-forest activity has taken place :

- ◆ To panchayats constituted under Part IX of the Constitution including their extension to scheduled areas in accordance with the PESA Act of 1996. This shall ensure that they are used to create and protect regeneration of natural forests and afforestation" in consonance with customary law, social and religious practice and traditional management practices".
- ◆ To autonomous District Councils in the North Eastern states. The Apex Court has earlier expressed the view that the management of reserve forest can be entrusted to the Councils by the Governor of the state.
- ◆ In JFM areas where a JFM activities are going on, NPV should be shared between the JFM village protection committees and the Gram Panchayats using the same rules as for other benefit-sharing activities.
- ◆ Panchayats and other recipient bodies in turn shall determine its sharing between the losers and to create additional eco-system valued investments on village lands.

2. Amounts accruing as compensation to the state level stakeholders should accrue to the State government within which land diverted is located. The State shall create a separate **State Forest Fund** into which these amounts shall be deposited. It shall be used *exclusively* for plantation, protection and forest development activities (not inclusive of expenses on building forest offices, rest houses and such other administrative matters).

3. The amount accruing as compensation to the Centre may be deposited in a centrally designated fund (such as the CAMPA). This can be used by the national government to promote forestry research and development at the national scale. This shall be called as **National Forest Development Fund**.

The Committee recommends further that a technical institution, funded by the National Forest Development Fund be created under the MOEF to conduct regular training programmes with an objective of capacity building for determining site specific NPV and other similar exercises. This institution be one which has the power to collect all necessary data and information from all sources regarding such exercises.

4. Further, amounts due as *ground rent* be collected by the District Collector, with due authorization by the state government, and deposited in the State forest Fund, on a quarterly basis. This amount be used by the State Forest Departments exclusively for forest land conservation programmes such as soil conservation, retention check dams and such other measures as deemed fit.

5. Each of these three components of Funds sharing the compensation payments should have similar legal status as the existing CAMPA. Further, they shall be subject to audit by the Comptroller & Auditor General (C & AG). Such detailed audit is consistent with sound public finance principles, and also militates against transparency and accountability.

6. In no case should the compensations collected under NPV and related payments be treated either as part of the Consolidated Fund of the Union or of the relevant State, or as Special Funds under sub-clauses of Article 371.

7. The forest departments should collect the compensating NPV on a site specific basis, and transfer the same to the three tier Fund institutions within not more than three months. The entire matter of such transactions shall come under Right to Information Act. Hence the same should be publicly notified.
