

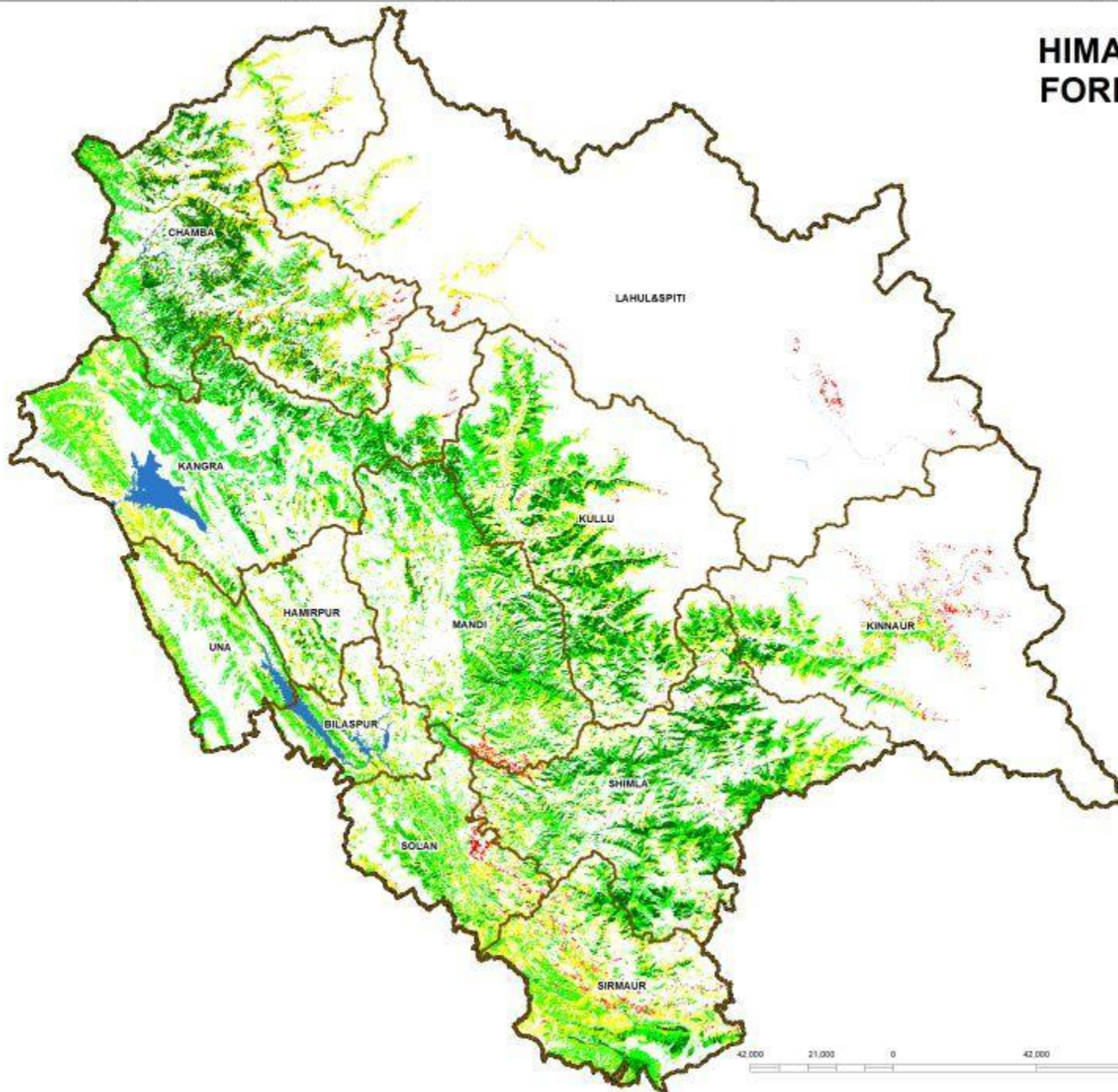
# **Forests Accounts**

**HIMACHAL PRADESH**

**INDIA**



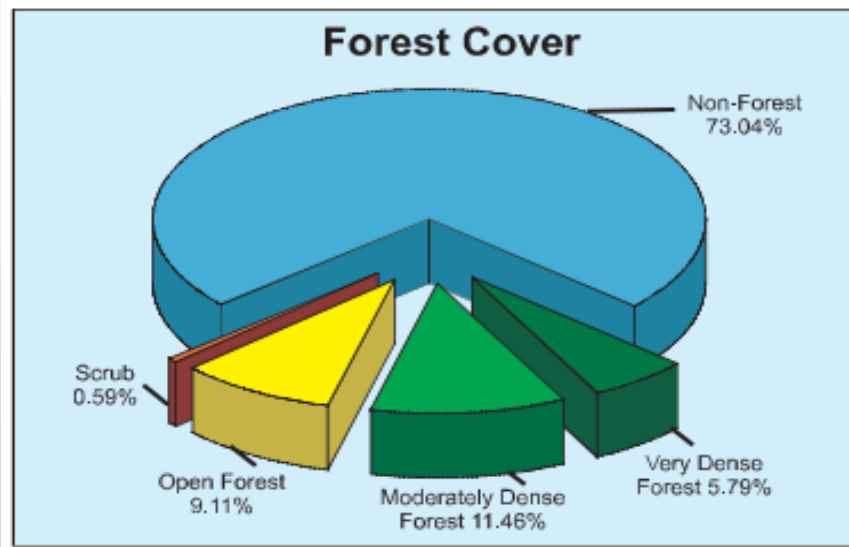
# HIMACHAL PRADESH FOREST COVER MAP 2009



## Legend

- MOD-DENSE FOREST
- NON-FOREST
- OPEN FOREST
- SCRUB
- VDF
- WATER





## Himachal Pradesh Forest Cover

<b>Forest Cover</b>	<b>14679 km<sup>2</sup></b>	<b>26.37% of TGA</b>
<b>Very Dense Forest Area</b>	<b>3224 km<sup>2</sup></b>	<b>5.79%</b>
<b>Moderate Forest Area</b>	<b>6381 km<sup>2</sup></b>	<b>11.46%</b>
<b>Open Forest Area</b>	<b>5074 km<sup>2</sup></b>	<b>9.11%</b>
<b>Scrub</b>	<b>328 km<sup>2</sup></b>	<b>0.59%</b>
<b>Area without forest and tree cover</b>	<b>40666 km<sup>2</sup></b>	<b>73.04%</b>
<b>Trees outside forests (TOF)</b>	<b>623 km<sup>2</sup></b>	

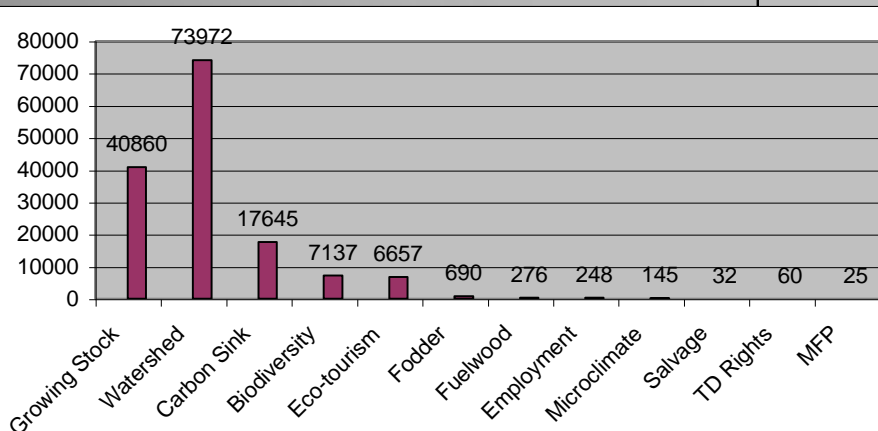
First Attempt to Value Forest  
Ecosystem Services of Himachal  
Pradesh (2000) and Developing  
PES (2006)

# Valuation of Ecosystem Services & Green Accounting of HP

Economic Valuation of Himachal Pradesh Forest for HPFSR (Verma, 2000)

TEV of HP forests Rs. 106664 crores (Rs. 7.43 Lakhs /Ha for entire forest area and Rs. 7.89 Lakhs /Ha for area under forest cover which led to the introduction of **Compenstion for the Loss of Ecological Values (CLEV)** in 2002 and currently used in preparing a case for carbon credits

Bar diagram depicting comparative picture of economic value of forestry goods & services



## I. Forest Resource contribution vs. Investment

1. Value of Growing Stock	Rs. 40860 Crore
2. Total Economic Value of Forests	Rs. 106664Crore (2.61 times of item 1, 980 times of item 3 And 2607 times of item 4).
3. Total Expenditure incurred in forest (Annual Budget)	Rs. 109 Crore
4. Revenue realised by forests	Rs. 41 Crore

## II. Contribution of Forsts to the GSDP

5. Total GSDP	Rs. 9258 Crores
6. Forestry & Logging	Rs. 487
7. Forestry as % of GSDP	5.26%
8. TEV of forests of HP ( as per current estimate)	Rs. 106664 Crores
9. Corrected GSDP	Rs. 115434 Crores
10. Forestry as % of corrected	92.40 %

**Based on HP study CSE projected annual value of India's Forest – Rs. 59,00,192 crores (2003)**

# Why Forest Accounts

- Natural resources being part of wealth of the nation, The Natural Resource accounting needs to be integrated with System of National Accounts (SNA).
- Various type and amount of forest outturn is under estimated in the present system of SNA.
- Eco System Services like watershed protection, carbon storage and bio diversity conservation are not captured.

# Why Forest Accounts contd.

- Intermediate benefits like livestock grazing and tourism are attributed to using sectors rather than forestry sector.
- Present System of National accounts provides false signals to the policy makers. It Confuses the depletion of valuable assets with the generation of income resulting in illusory gains in income and permanent losses in wealth (Goal of Sustainable development)
- For natural Forests SNA records only the Income from logging but not the changes in the natural forest stocks
- Fiscal transfers are generally linked with contribution of a sector to the state revenue.



# Why Forest Accounts contd.

- Non marketed products are also not included in the national accounts although they are extremely crucial to rural livelihoods. (Measurement difficulties)
- Difference between “Produced” and “Natural” Capital.
- The value of forest degradation/depletion is not recorded as a cost in SNA.

# Policy issues

- **Forest Policy 1988** focuses on environmental stability , restoring ecological balance and preserving the forests but National Accounting System considers only logging incomes in the accounting system resulting in under valuation of forestry sector's contribution.
- **For Sustainable development**, It is necessary to have a clear idea regarding the extent and nature of degradation across various natural resources so that real costs of degradation are accurately estimated.
- **Annual estimates of degradation** should be subtracted from the GDP to arrive at adjusted GDP for the Forestry sector.
- **Estimation of gross value** added from the forestry and logging sector in India is presently carried out by the production approach. This approach results in high degree of under estimation. There is a need to estimate and integrate tangible and intangible benefits of the forestry sector in SNA.

# Policy issues contd.

- How to ensure that forests get rightful place in Macro economic policy
- Economy-wide linkages with forestry needs to be improved by
  - Demonstrating improved measures of the economic benefits from forest ecosystems to all sectors of the economy
- Ban on green felling- should it continue or we should manage forests for revenue generation?
- For natural forests, natural growth is not considered an increase in inventory.

# Policy issues contd.

- Identification of beneficiaries and to ensure their contribution in regeneration / conservation of forests
- Alternative policies in lieu of green felling-PES/NTFP/Carbon markets
- Net benefit method vs User Cost method of calculating depletion
- Inclusion of Maintenance Costs
- Valuation of Non- Marketable Environmental Services

# Issues with SNA

- GDP is an unsuitable indicator of sustainable development (Invisible values are not captured)
- GDP cannot record trade-offs ( Non marketed products)
- Natural capital degradation costs India \$36 billion to \$124 billion annually, or between 2.6% and 8.8% of 2009 gross domestic product (GDP). (World Bank)

# How would forest accounts help?

- Can help in analyzing trade-offs
  - Between cutting down upstream forests for timber and minerals versus the risk of floods downstream
- Better inform development policy through improved sectoral planning and more equitable social allocations
  - Dependence of other sectors on healthy forests
- Would capture both – resource use as well as damaging effects of degradation
- Forests accounts at watershed level can help design PES schemes

# How would forest accounts help?

- Accounts are descriptors to assess performance
- Incomplete if natural assets are ignored
- Crucial role of forests undervalued in SNA (System of National Accounts)
- Forests are “self-generative but degradable asset”
- If misused, they depreciate and impact economic well-being

# Way Forward

- Preparation of physical area and volume accounts of Forest resources in Himachal Pradesh as per SEEA framework.
- Development of Timber accounts
- Estimate the exact potential and contribution of NTFP to the state.
- Understand the exact contribution of the Forests to Tourism sector of state economy.
- Physical accounts vs Monetary accounts  
(Develop MSUT tables for the timber and NTFP)
- Integrated accounts or Satellite accounts



# Way forward

- Establish close collaboration between data producers and policy and decision makers
- Demonstrate the practical policy implications of using forest accounts
- Development of Institutional arrangement / Procedures for:
  - Improvement in data availability (Gaps ?)
  - Compilation and policy analysis
  - Capacity building
  - Communication and advocacy
  - Indicators for cultural services
- Need for an agreed international standard