

# **NATURAL CAPITAL ACCOUNTING IN HIMACHAL PRADESH – FEASIBILITY AND PLANNING STUDY**

Workshop on Natural Capital Accounting in Himachal Pradesh

Targeted at the Forestry Sector

Hotel Holiday Home

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# HIMACHAL'S GROWTH PATH AND FORESTS

- ✘ Real growth rate - 7.44% in 2011-12.
- ✘ Average growth rate of 8% during 2005-06 to 2012-13.
- ✘ Increasing growth --- increasing economic activity
- ✘ The real question
- ✘ Did this growth rate come at a cost of depletion of natural assets or as a benefit of increasing stock of the state's natural resources?
- ✘ Natural capital Accounting gives us the way

# PRIORITIES AND CHALLENGES FACED BY HP

Hydropower cannot ignore source management of water resources, reductions in water flows, high environmental footprint, conversion of dams, infrastructure



Economic social development and poverty eradication (ecotourism)

Tourism sector dominated by nature tourism, High environmental footprint, creation of infrastructure, roads

Maintain ecological balance (natural resource base)

60% of area under forests, climate change one threat

# FEW TAKES FROM THE EARLIER TALKS IN THE MORNING

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- ✘ When GSDP slides down it send jitters” (Sr. Shrikant Baldi) – Do we have an alternative?
- ✘ Bhakra dam life cycle has reduced because of siltation - we need solution at the point of origin
- ✘ We need acceptable figures on forest values
- ✘ Mr Tarun Shridhar
- ✘ Environment and Forests sector becoming more of policing rather than managing
- ✘ - Positive response to PES – need to demystify
- ✘ Sunita Narain – Forestry sector not playong a major roke in economic growth
- ✘ Incentivise the planting of trees
- ✘ Forests have not become part of the state strategies



# FORESTS AND HP

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- ✘ Forest cover - 66.52% of total geographical area
- ✘ Forest's official contribution – around 4.8% of GSDP.
- ✘ Key priority sectors of HP thrive on rich forest resources
- ✘ Forests play a key role in HP's commitment to low-carbon growth and a carbon-neutral economy.
- ✘ Act as complementary life support system to Agriculture and Horticulture in hills

# FORESTS AND HP

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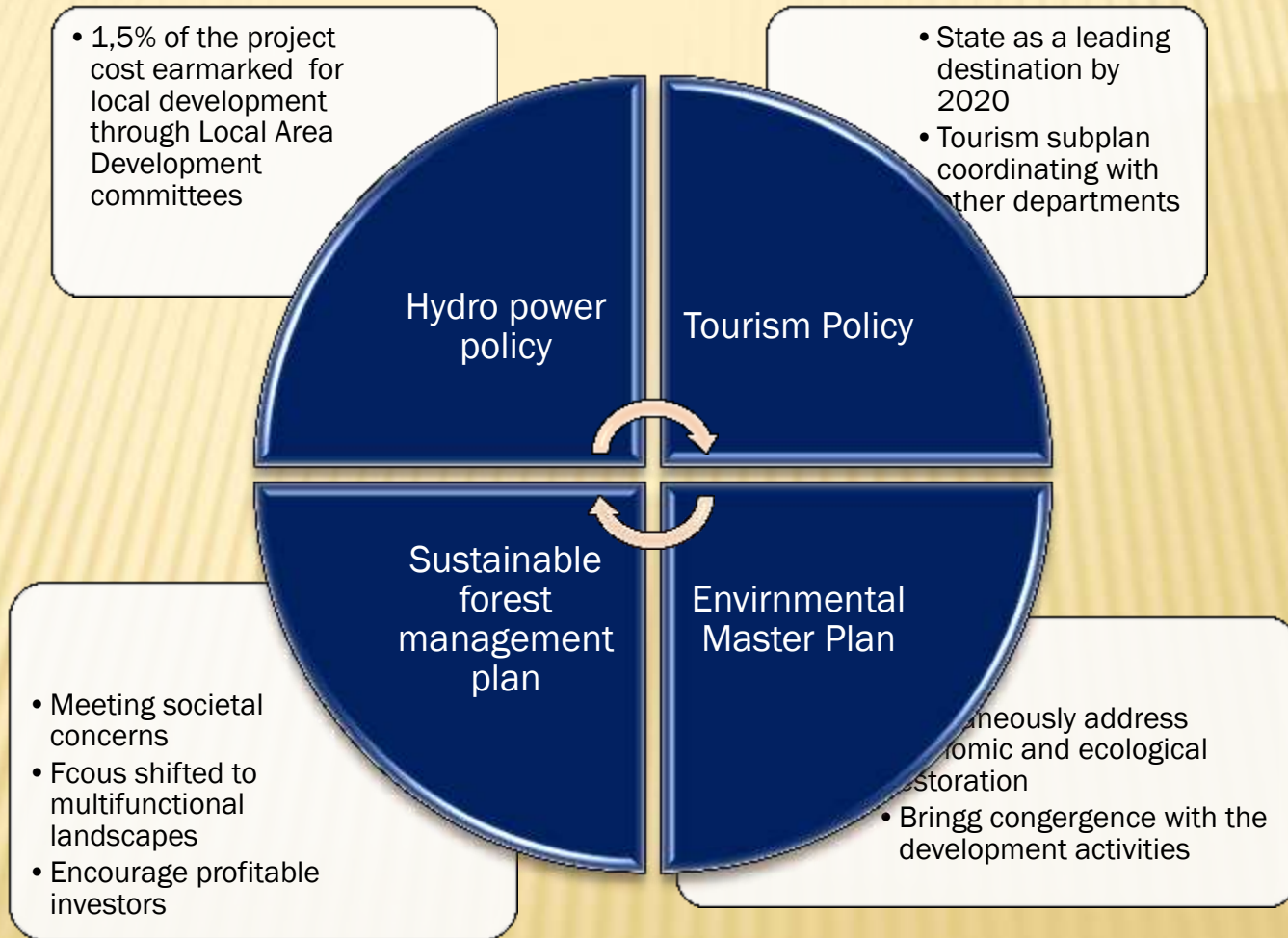
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# OBJECTIVES OF THE STUDY

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- ✘ Look at the feasibility of developing forest accounts
- ✘ Describe an approach to link environment with the economy
- ✘ Carry out an Intensive review of data sources and institutional capability
- ✘ Identify the key data sources
- ✘ Identify the capacity gaps taking into consideration the current commitments to implement natural capital accounting

# POLICY PRIORITIES OF THE STATE

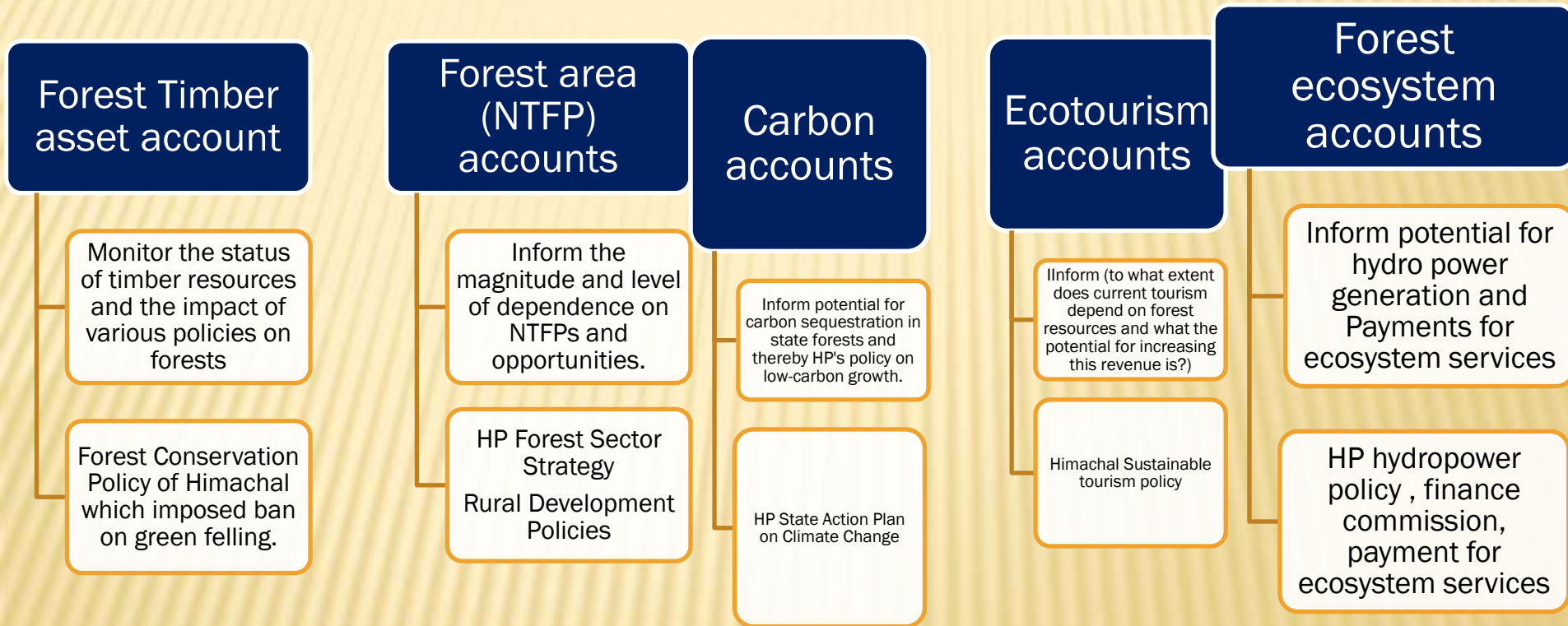




# Do HP state income accounts capture the economic contribution of forests?

Forest Product/ Service	Services Provided	State Income Accounts
Industrial Wood	Provisioning	Depletion of forests not included in net value added or net domestic product.
Fuelwood and charcoal	Provisioning	<b>Underestimated</b> , NSS Consumption Expenditure Surveys (every five years)
Minor Forest Products	Provisioning services (Resin)	Production estimates from H.P. State Corporation
	Others	<b>Underestimated</b> , only royalty value available from HPFD
<b>Forest Services</b>		
Livestock Grazing	Provisioning services	Attributed to agriculture
Pollination services of wild bees	Supporting services	Attributed to agriculture
Recreation and Tourism	Cultural services	Attributed to trade, hotel, and restaurant, or Other services
Carbon storage	Regulating services	Omitted
Biodiversity Protection, Soil Protection, Water Regulation	Supporting services	Omitted

# NCA and Policy Linkages for Himachal Pradesh



## A pathway for physical asset accounts for the select assets

<b>Accounts</b>	<b>Key policy issues involved</b>	<b>Key stakeholders</b>
Forest Timber asset account	Measure the value of depletion and degradation of forest resources. Examine ways to retain the forests intact. Gauge the sustainability of future use.	Govt. of H.P., HPFD, HPSFDC, FSI, DoLR, H.P., H.P., DoEST, H.P.
Forest NTFP asset account (other than timber)	Analyze whether appropriate rents are being paid by forest users Understand the role of NTFPs in providing livelihoods and conserving forests	Govt. of H.P., HPFD, HPSFDC, FSI, State Tourism Department, DoLR; H.P, DoEST; H.P.
Carbon accounts	Measure whether the forests are net sources or sinks of carbon and their exact contribution to climate change mitigation. Look at ways to link them with REDD and other carbon management options.	FSI, HPFD, DoEST; H.P., MoEF.
Ecosystem accounts	Examine how forest biodiversity and quality is being impacted  Examine ways to conserve forests by linking with PES, REDD plus etc.	State Biodiversity authorities, State Technical Council, DoEST, HPFD, MoEF, HP energy department
Eco-tourism accounts	Ensure that a fair share of value of attributed to forests for the tourism services it provides	Department of Tourism, Department of economics and statistics, Department of forests
Forest Timber asset account	Measure the value of depletion and degradation of forest resources. Examine ways to retain the forests intact. Gauge the sustainability of future use.	Govt. of H.P., HPFD, HPSFDC, FSI, DoLR, H.P., H.P., DoEST, H.P.

# Building forest accounts for HP

## SEEA central framework

Physical flows between environment and economy

Stocks of environmental assets and changes in these stocks

Sequence of economic accounts that highlights depletion adjusted aggregates

Economic activities and transactions related to environment

## Experimental ecosystem accounting

Physical accounts for the use of environmental goods and services

Monetary accounts for the use of environmental goods and services

Physical asset accounts of the environmental assets that supply the environmental goods and services

Monetary accounts of the environmental assets that supply the environmental goods and services



# PRIORITIES FOR IMPLEMENTATION OF NATURE CAPITAL ACCOUNTING

## STRENGTHENING NTFP BASE

- ✘ 66% of GA legally under forests
- ✘ Availability of wide range of NTFPs
- ✘ Long gestational periods for cultivated NTFPs
- ✘ Great potential for value addition
- ✘ Cost effective means of conservation
- ✘ Enhancing livelihoods and provide employment
- ✘ In tune with the forest sector strategy of HP

## PROMOTING ECOTOURISM

- ✘ New ecotourism policy by HP in 2001
- ✘ Involvement of local communities to support livelihoods
- ✘ Conserve local culture, ecology and landscape
- ✘ Huge potential due to its scenic beauty
- ✘ Most value added by tourism attributed to tourism department

**Framework for physical asset account for forest resource: Volume Accounts for timber and fuelwood (in cubic meters)**

	Reserved Forests			Protected forests			Unclassed forests
	VDF	MDF	Open forest	VDF	MDF	Open forest	
<b>Opening stock</b>							
<b>Changes due to economic activity (2)= (a+b+c)</b>							
<i>Logging/harvest+ illegal logging (a)</i>							
<i>Logging damage (b)</i>							
<i>Afforestation</i>							
<b>Other volume changes (3)= (d+e+f+g+h)</b>							
<i>Forest fires(d)</i>							
<i>Stand Mortality (e)</i>							
<i>Animal grazing (f)</i>							
<i>Shifting cultivation (g)</i>							
<i>Forest encroachment (h)</i>							
<b>Other accumulation (4) (i+j+k)</b>							
<i>Natural growth (i)</i>							
<i>Regeneration (j)</i>							
<i>Transfer of land to other activities (k)</i>							
<b>Net volume changes 5= 3-(2+4)</b>							



# DATA SYSTEMS

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Forest Survey of India

State Forest Department -

Working Plans of the HP forest department

Directorate of Land records

GIS Bhuvan

Hydrological information systems

Department of Environment Science and Technology

Department of Economics and Statistics

Department of Agriculture



# REVIEW OF INSTITUTIONAL CAPABILITY FOR DEVELOPING FOREST RESOURCES ACCOUNTS AND CAPACITY BUILDING

Data be completely exploited for developing the accounts

Capacity of all relevant officers be enhanced

The environmental issues are usually not a part of annual training plans of most of the departments.

Current focus is primarily on technical training and not on conceptual understanding of environmental issues and how it impacts the environment as a whole

State has expertise innovative ways of managing the forests for e.g, CAMPA

Catchment treatment Plans

10% of CAT funds set aside for schemes like PES involving local people

Community based bio carbon project

# INSTITUTIONAL STRUCTURE

DEST can take the overall coordination given the closeness to the mandate of the department, knowledge, experience, organizational capacity

- The department of planning and the forest department can play a critical role in mainstreaming forests into the national accounts.

An inter-departmental steering committee can be established involving the relevant departments and line ministries

## Short-term pathway to develop forest accounts for the state of Himachal Pradesh

0-4 months

- Prepare physical area and volume accounts for forest resources in Himachal Pradesh. This can be completed in 4 months as per the standard framework suggested by SEEA adapted to the conditions and legal classifications of Himachal Pradesh.

4-7 months

- Examine the value of timber products in Himachal economy. As there is a ban on clear felling in Himachal, this may not be to show the true contributions of forests for timber. However, Himachal has tree patta system where, rights are given away to concessionaries to remove live trees. In order to understand the unrecorded value in the national accounts and also to ensure that the concessionary system is not affecting the sustainability of forests, the timber accounts can be developed.

7-9 months

- Estimate the exact potential and contribution of non-timber forest products to the state. Several of the NTFPs are grossly under estimated. The Panchayats do record to certain extent the value of NTFPs collected from forests but often do not send timely reports to the forest department. The NTFPs can play a huge role in sustaining rural livelihoods. If the informal economy is substantial, the managing forests for NTFPs can also improve other regulating and supporting services of forests. The value chain of NTFPs also needs to be explored to better understand their contribution.

9-12 months

- Understand the exact contribution of forests to the tourism sector of the state economy. Develop MSUT tables for the timber and NTFP to understand their exact contribution to different sectors of the economy. This is important to ensure its integration with the state accounts of Himachal and also to revise the exact contribution of forests.

12-14 months

- Develop MSUT for timber, non-timber and eco-tourism to understand their exact contribution to different sectors of the economy. This is important to ensure its integration with the state accounts of Himachal and also to revise the exact contribution of forests.

**THANK YOU FOR THE OPPORTUNITY AND  
SUPPORT**