

# Socio-economic Aspects Transitions to Sustainable Forest Management and Rehabilitation in India

*Madan Prasad Singh*  
*Head*

*Climate Change and Forest Influence Division*



**Forest Research Institute**

Indian Council of Forestry Research and Education  
(an autonomous body of Ministry of Environment and Forests, Govt. of India)

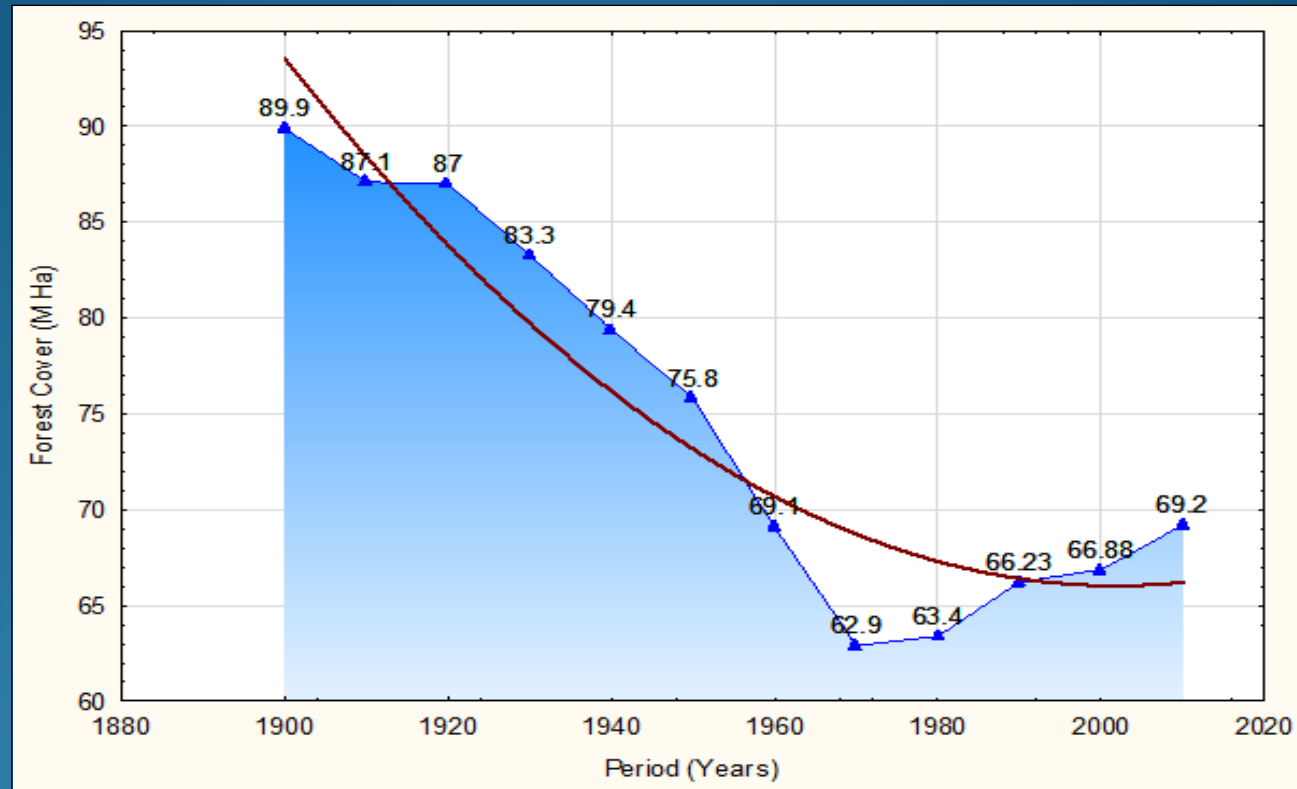
P.O. New Forest, Dehradun – 248006

Uttarakhand, INDIA

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# Forest Transition Curve of India



**Forest transition curve is the net result of**

- Deforestation and degradation
- Afforestation and Rehabilitation
- Conservation and sustainable management

# Aspect Matrix



<b>Deforestation domination</b>	<b>Deforestation and degradation</b> <b>Afforestation and rehabilitation</b> <b>Conservation and sustainable management</b>
<b>Afforestation domination</b>	<b>Afforestation and rehabilitation</b> <b>Deforestation and degradation</b> <b>Conservation and sustainable management</b>
<b>Conservation domination</b>	<b>Conservation and sustainable management</b> <b>Afforestation and rehabilitation</b> <b>Deforestation and degradation</b>

# Sustainable Management of Forests in India

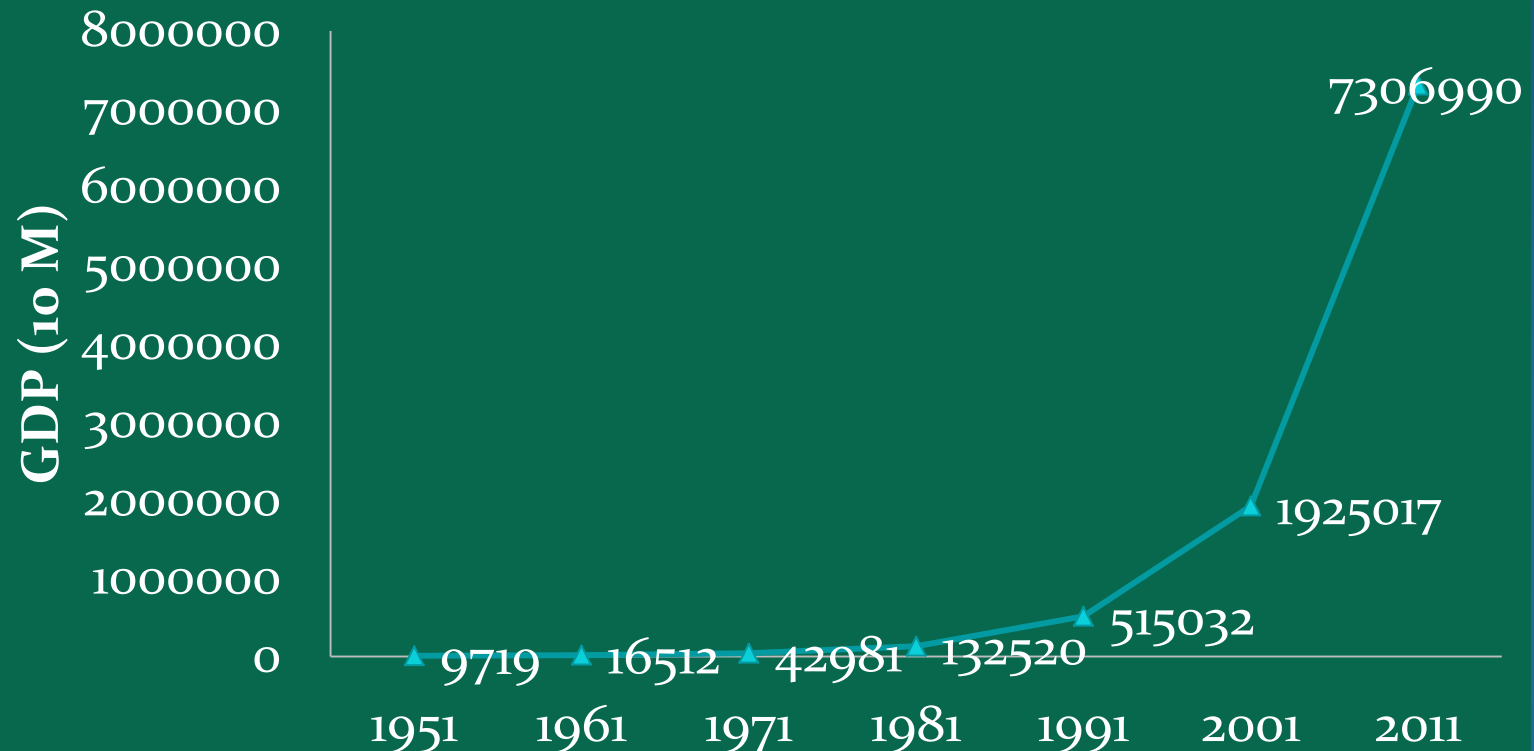
- ❖ Ecologically sound –environmental functions including biodiversity conservation
- ❖ Socially beneficial and responsible –social safeguards
- ❖ Economically viable –productive functions including mitigation potential of climate change



S. N	Forest Functions	Changing Importance of Forest Functions	
		1980	2010
A. Production of Goods			
	Industrial/farm forestry	High	High (Cost limitation of land tenure )
	Agro-forestry	Limited	Very High
	Non Timber Forest Products	Medium	Very High
	Fuel wood	Very High	Very High
	Fodder and Grazing	Very High	Very High
A. Production of Services			
	Climate change	Almost Unknown	Very High
	Watershed services	Medium	Very high
	Protected Areas	Medium	High
	Biological Diversity	Limited	Very High
	Eco-tourism	Limited	Medium

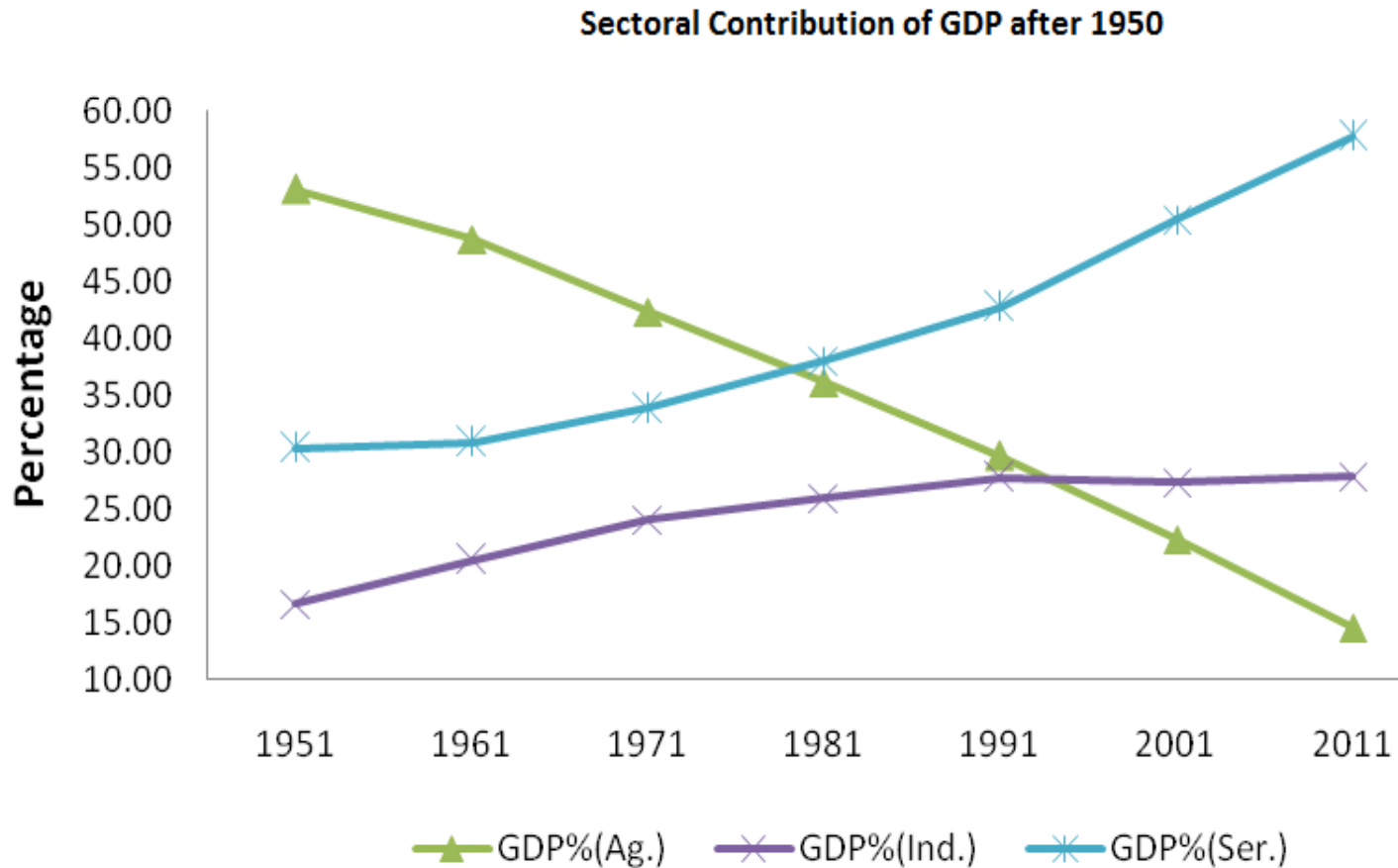
# Socio-economic Scenario

Gross Domestic Product of India after 1950

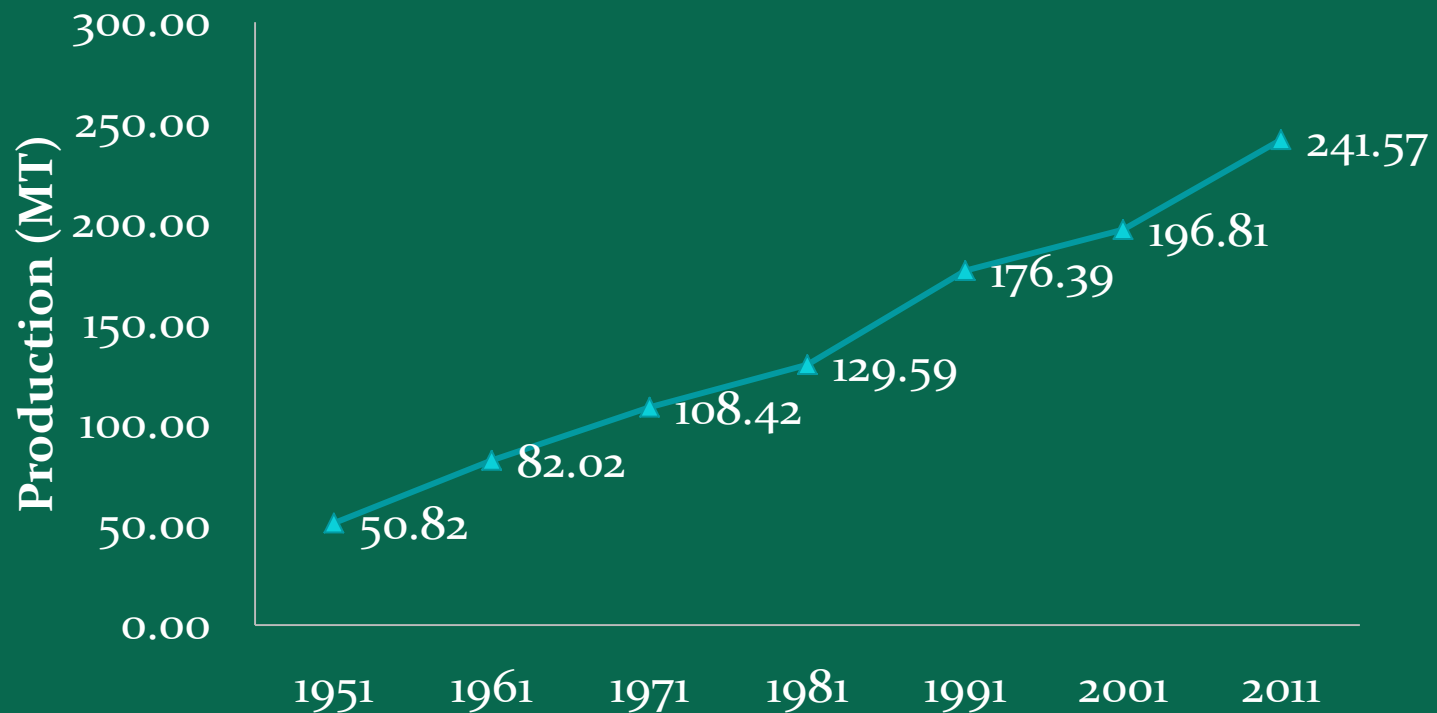


**Gross Domestic Product of India after 1950**

# Sectoral Contribution of GDP after 1950

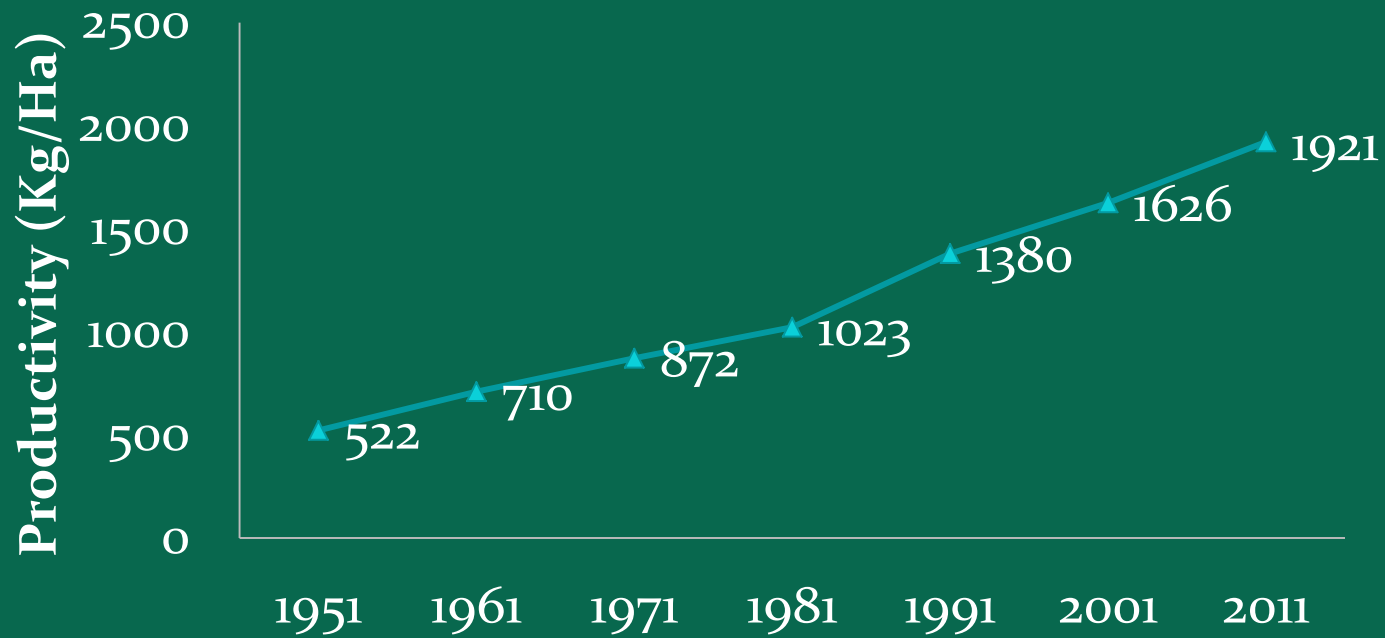


## Agricultural Production after 1950

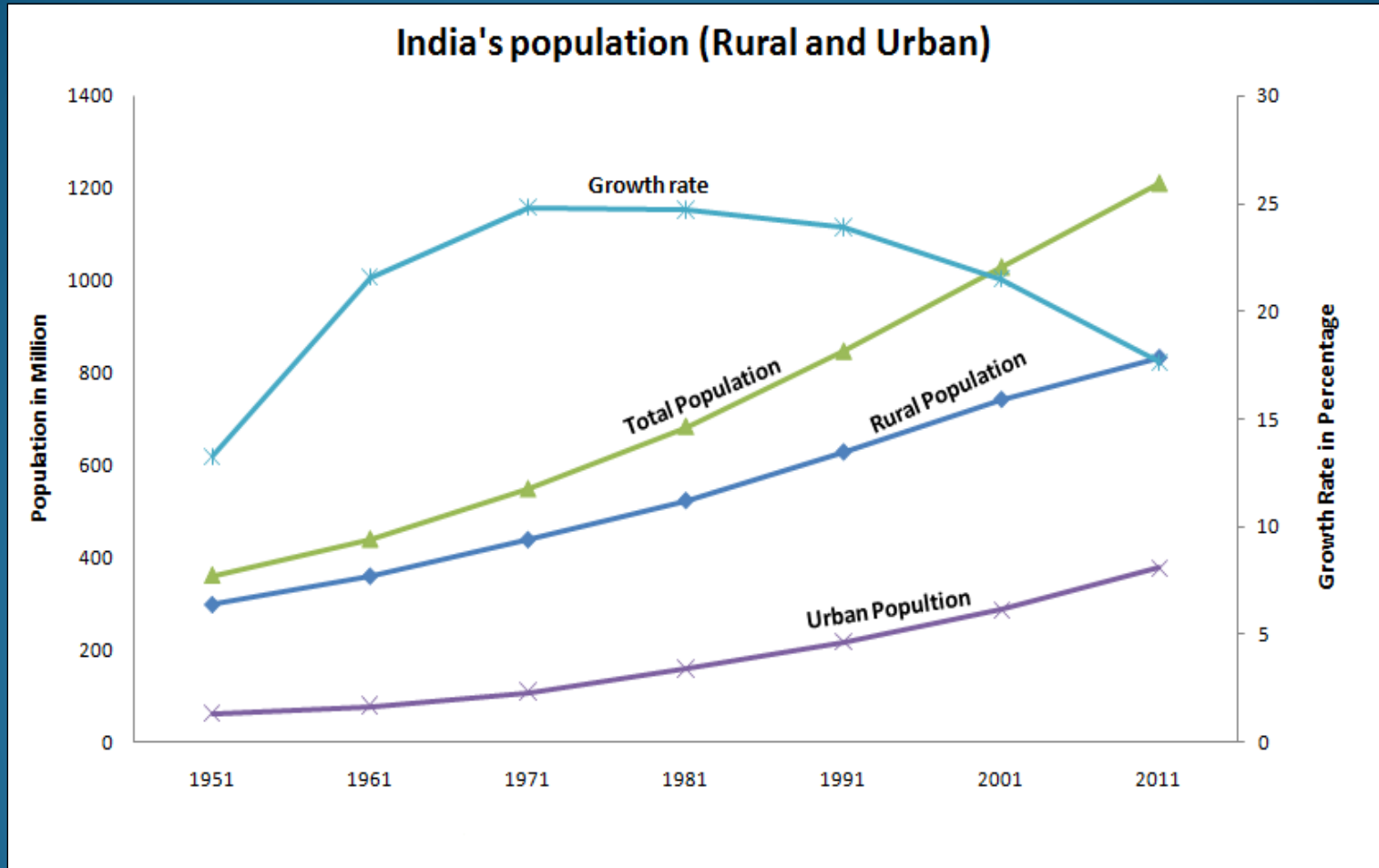




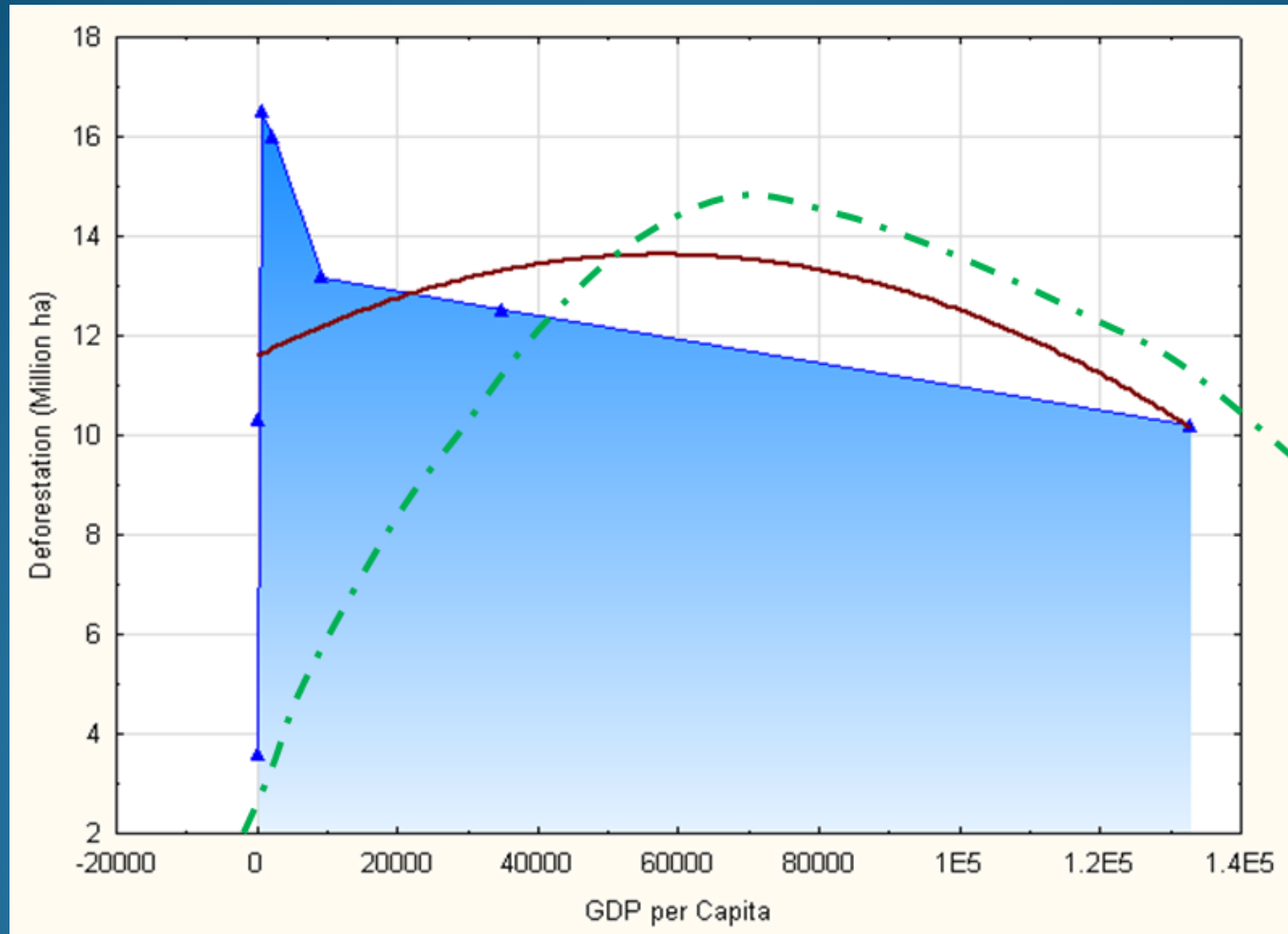
## Agricultural Productivity after 1950



# India's Population (Rural and Urban)

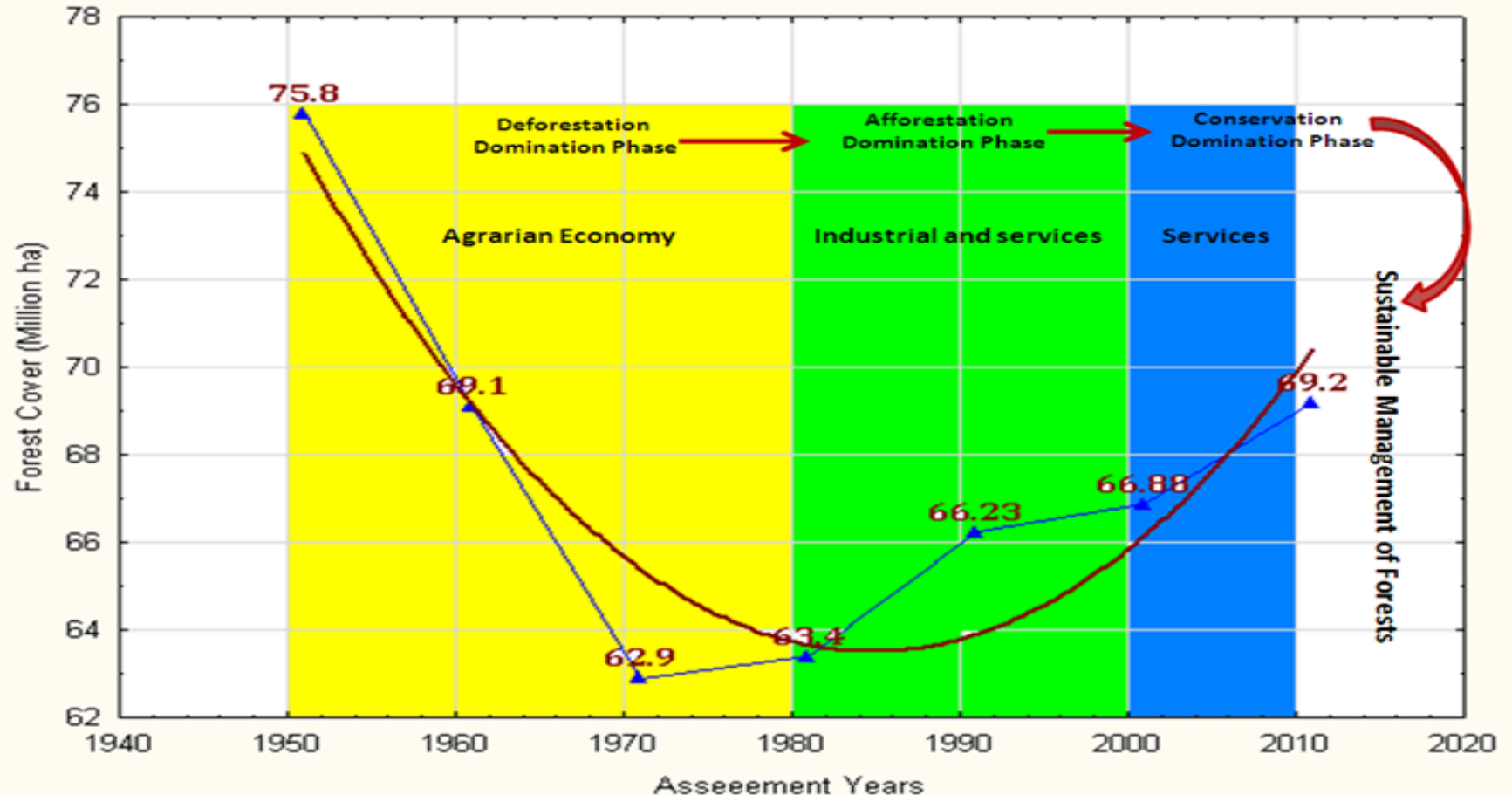


# Conventional Environmental Kuznet Curve in Indian conditions



**Forest transition is not the typical Kuznet Curve because of the planned, policy and legal intervention**

# Socio-economic stages of development and Forest Transition in India



**Deforestation  
Domination Matrix**

Deforestation & Degradation  
Afforestation/Rehabilitation  
Conservation

**Afforestation  
Domination Matrix**

Afforestation/Rehabilitation  
Deforestation & Degradation  
Conservation

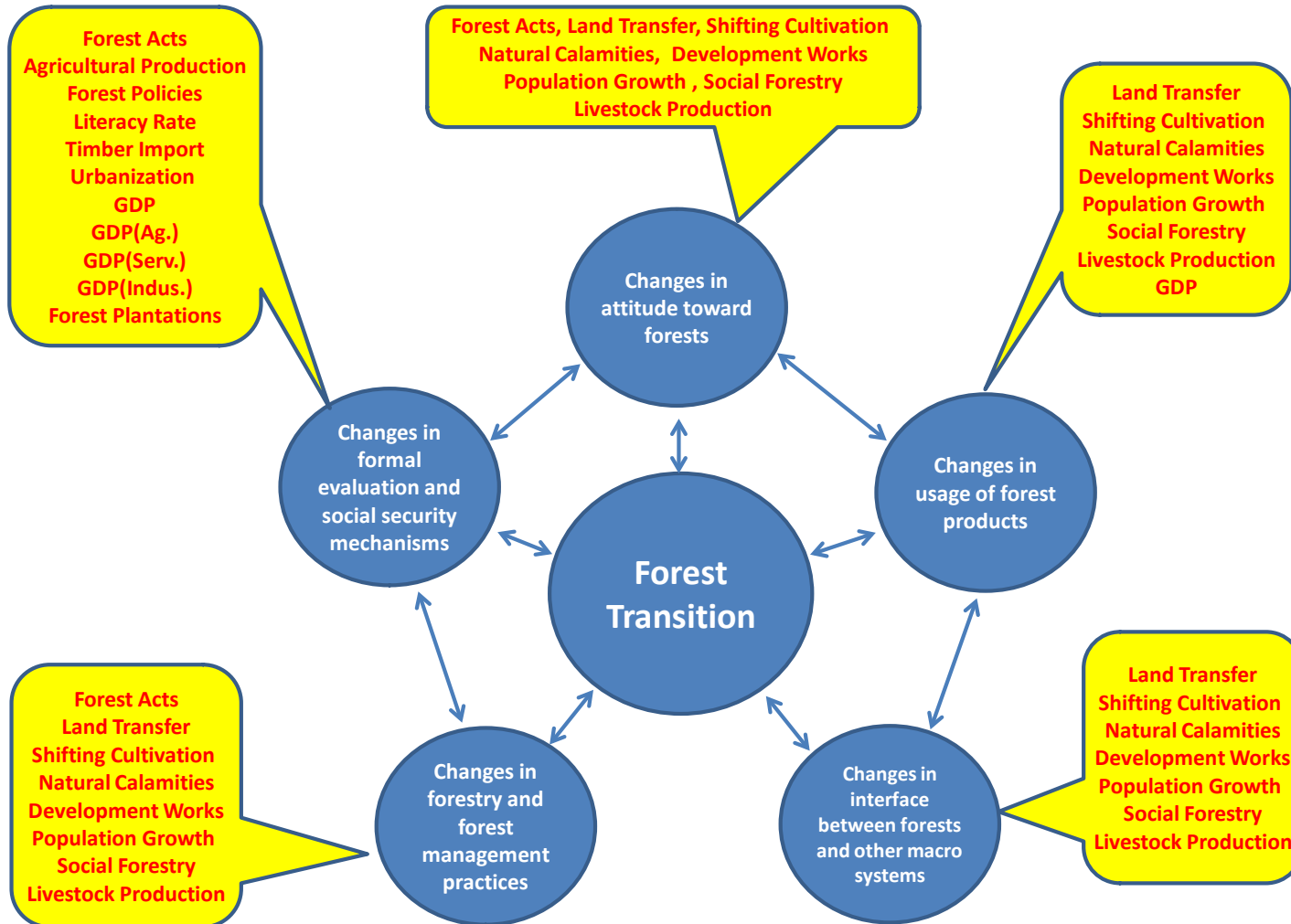
**Conservation  
Domination Matrix**

Conservation  
Afforestation/Rehabilitation  
Deforestation & Degradation

# Comparative dominance chart of factors during different phase of development

<b>Socio-economic parameters</b>	<b>Phase I</b>	<b>Phase II</b>	<b>Phase II</b>
Forest Acts and Policies	High	Higher	Higher
Notified Forest lands	Medium	Medium	low
Watershed management programmes	Low	Medium	High
Awareness	Low	Medium	High
Timber Import	Low	Medium	High
Forest Plantations	Low	Medium	High
Population Growth	Medium	High	High
Land availability for plantation	High	High	Medium
success rate of plantation	High	Medium	Low
Land Transfer	High	Medium	Low
Agricultural expansion	High	Low	Reverse
Shifting Cultivation	Low	Medium	High
Special plantation drives	Low	Medium	High
International focus	Medium	High	High

# Comprehensive Forest Transition Cluster Model of India



## Conclusion

**Socio-economic conditions facilitated the forest policy and programme interventions to happen.**

### **Future Scope:**

- 1.Land abandonment happening on unproductive agricultural lands-Farm forestry**
- 2.Forest Product scarcity-agroforestry in states/areas having high agricultural productivity and industrial plantation since no supply from natural forests**
- 3. Intensive forest management to reduce degradation related to unregulated removal and increase productivity**
- 4. Mitigation potential of forests.**

**Thank you very much**

**To be continued by Dr P.P.Bhojvaid  
on  
policy issues**