



NINTH EXECUTIVE FOREST POLICY COURSE

**SUSTAINABLE DEVELOPMENT GOALS, CLIMATE CHANGE  
AND THE FUTURE OF FORESTS IN THE ASIA-PACIFIC**

24 May - 2 June 2016, Yogyakarta, Indonesia

# **SOCIETY, FORESTS AND FOREST TRANSITION**

**Dr. CTS Nair**



# INTRODUCTION

## What do we want to see?

- Healthy, productive forests fulfilling the needs of people now and in the future.
- Reversal of deforestation and degradation
- Scientific management.

## But what is the reality?

## Could we expect stability in land use?



# BACKGROUND

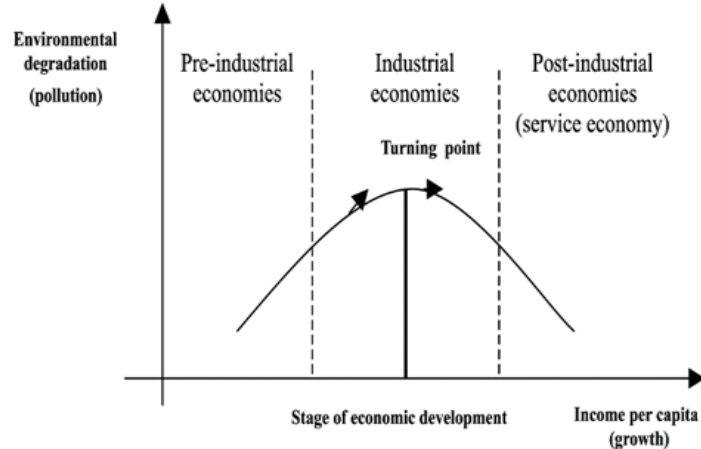


- Landscapes : Cultural or human dominated landscape and natural landscape.
- The proportion of these two have been changing over time and will continue to change.
- Cultural or human dominated landscape has expanded enormously at the cost of the natural landscape.
- Deforestation and forest degradation are outcomes of the expansion of cultural landscapes. Natural factors could also cause deforestation and degradation.
- Sometimes the pressures to expand cultural landscapes cease, enabling stability and reversal of the situation.



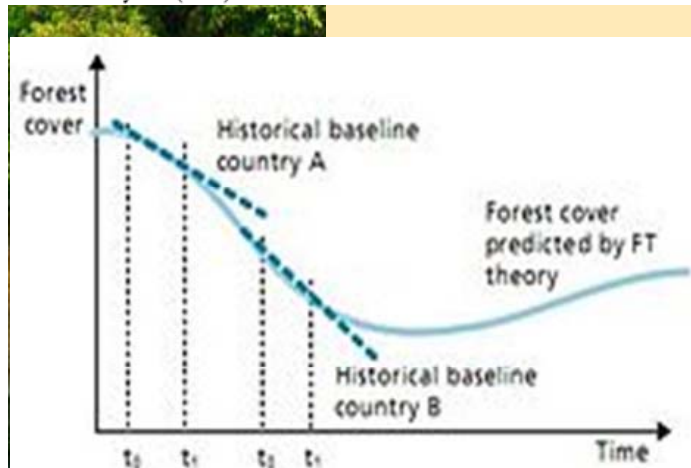


# FOREST TRANSITION: DEFINITION



Source: Panayotou (1993)

- A critical question: When deforestation will stop, when forests will start recovering and when will SFM be widely implemented.
- Adapting the framework of Environmental Kuznets curve and drawing on the experience of Europe Sandy Mather developed the concept of forest transition.



Source: Angelsen 2008.

## Forest Transition

*“Reversal or turn around in land use from net forest loss to net forest gain”*



# PATHWAYS TO TRANSITION

- Pathways of forest transition are complex and many.
- Fundamental issue is how dependency on land is declining:

## FACTORS IMPACTING LAND DEPENDENCY

- ❑ Internal : Operating at the household, local and national levels.
- ❑ External: Stemming from outside – especially developments outside the country.



# SOCIETAL TRANSITION AND FOREST TRANSITION

Close linkage between societal evolution and forest transition

- Pre-agrarian societies: Much less impact on forests
- Agrarian societies: Expansion of agrarian societies has led to significant deforestation.
- Industrial societies:
- Post-industrial societies



# TYPES OF TRANSITION

- **Natural or passive transition**
- **Planned transition.**
  - **Market driven**
  - **Policy driven**
  - **Combination of market forces and policies**



# FOREST TRANSITION: IMPACT OF OTHER POLICIES

What happens outside the forest sector will have an enormous impact on forests determining whether transition to sustainable forest management will be feasible.

- Agricultural policies: Still a significant share of deforestation is influenced by developments in the agricultural sector.
- Industrial and trade policies.
- Energy policies.
- Infrastructure development.
- Climate change policies





# FOREST TRANSITION IN SOUTH ASIA

Country	Population density	Population growth rate	GDP per capita (PPP) in USD	Forest cover (percentage)	Current state of transition and probable trends.
Bangladesh	1229	1.4	1335	11	Forest loss is likely to continue.
Bhutan	18	1.6	4759	69	Currently forest area is stable, but future is uncertain, largely due to external factors.
India	397	1.4	2946	23	Apparent forest transition , will be extremely challenging to sustain. The major problem will be forest degradation.
Nepal	201	1.8	1104	25	Localised transition – At the aggregate level forest loss will continue.
Pakistan	230	2.2	2538	2	Already very low forest cover.; likely to improve , primarily through farm forestry.
Sri Lanka	320	0.9	4564	29	Likelihood of improvement



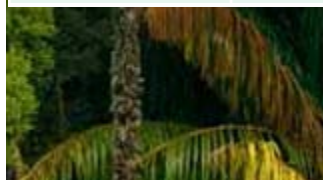
# FOREST TRANSITION IN SOUTH EAST ASIA

Country	Population density	Population growth rate	GDP per capita (PPP) in USD	Forest cover (percentage)	Current state of transition and probable trends.
Cambodia	82	1.7	1951	57	Unlikely to witness any forest transition in the near future. Internal and external pressure on forests will be very high
Laos	27	1.9	2124	68	External pressures on forests will be very high and the compulsions for enhancing investments for economic development
Myanmar	76	0.9	1110	48	The situation in Myanmar will be very similar to that of Cambodia and Laos
Indonesia	125	1.2	3994	52	Localised transition especially in Java – forests in other areas will be under tremendous pressure
Malaysia	82	1.9	14215	62	Potential for stability on the forest front.
Timor Leste	74	3.2	802	50	Deforestation will persist



# FOREST TRANSITION IN SOUTH EAST ASIA

Country	Population density	Population growth rate	GDP per capita (PPP) in USD	Forest cover (percentage)	Current state of transition and probable trends.
Philippines	303	1.8	3513	26	Some early signs of transition, especially considering that forest cover has already gone down significantly up to about 1990.
Thailand	132	0.6	8086	37	Early indications of stability. Has the potential for continued improvement.
Vietnam	281	1.1	2787	44	Policy driven transition which will require strong policy and institutional support to sustain. Increasing dependence on wood supply from Laos, and Cambodia.



# FOREST TRANSITION IN EAST ASIA

Country	Population density	Population growth rate	GDP per capita (PPP) in USD	Forest cover (percentage)	Current state of transition and probable trends.
China	144	0.6	5971	22	In the initial phase of transition. Primarily a policy driven transition and sustaining this will require strong policy support
Japan	349	-0.1	34129	69	Accomplished forest transition long ago and forest area will remain stable.
Korea	497	0.4	27658	63	Very similar to the situation in Japan. Forest area is expected to remain stable.
Mongolia	2	1.1	3557	7	Forest transition is unlikely in the near future , especially due to mining and other infrastructure development.



# FOREST TRANSITION IN THE PACIFIC

Country	Population density	Population growth rate	GDP per capita (PPP) in USD	Forest cover (percentage)	Current state of transition and probable trends.
Fiji	46	0.6	4358	56	Recent assessments indicate relative stability indicating transition. This is likely to persist.
Papua New Guinea	15	2.4	2180	63	High rate of externally driven deforestation and the probability of forest transition is very low.
Solomon Islands	18	2.6	2613	79	The situation is very similar to Papua New Guinea. No chances of forest recovery in the near future
Australia	3	1.1	38,784	19	Forest area statistics indicate a continued decline in the extent of forests. Australia should have accomplished forest transition long ago. This is a puzzle to be examined in detail.
New Zealand	16	0.9	27,260	31	New Zealand has been able to accomplish forest transition and the area under forests has increased steadily largely due to afforestation.

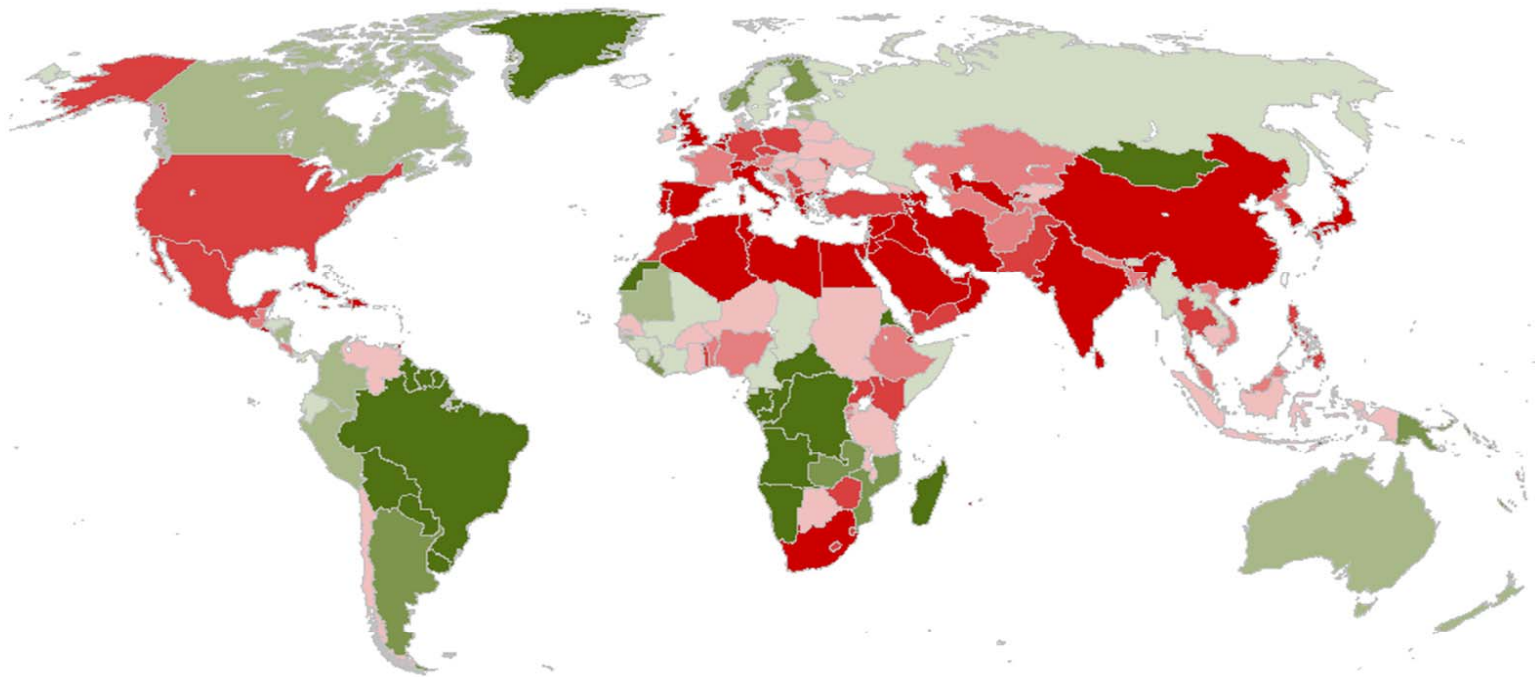


# IMPORTANT QUESTIONS

- Should we look at forest transition from the narrow forest perspective or should it encompass the totality of sustainability (A sustainable society)?
- Is the forest transition stemming from shifting the burden (dependence) to other areas/ countries?



# ECOLOGICAL FOOTPRINT



**Ecological Footprint of consumption exceeds biocapacity**

- > 150 %
- 100 - 150 %
- 50 - 100 %
- 0 - 50 %

**Biocapacity exceeds Ecological Footprint of consumption**

- 0 - 50 %
- 50 - 100 %
- 100 - 150 %
- >150 %

Data from the National Footprint Accounts 2016 Edition. [www.footprintnetwork.org](http://www.footprintnetwork.org)



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# KEY FOREST TRANSITION ISSUES

- **Spatial aspects of forest transition.**
- **Enabling conditions**
- **Future of forest transition in the context of population growth and increasing demand for food, fibre and fuel.**
- **Climate change responses and forest transition.**







# THANK YOU



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