



Imagined Forestry

- Lessons from past and present

Jens Friis Lund

**Sokoine University of Agriculture,
March 7, 2017**



UNIVERSITY OF COPENHAGEN

Outline

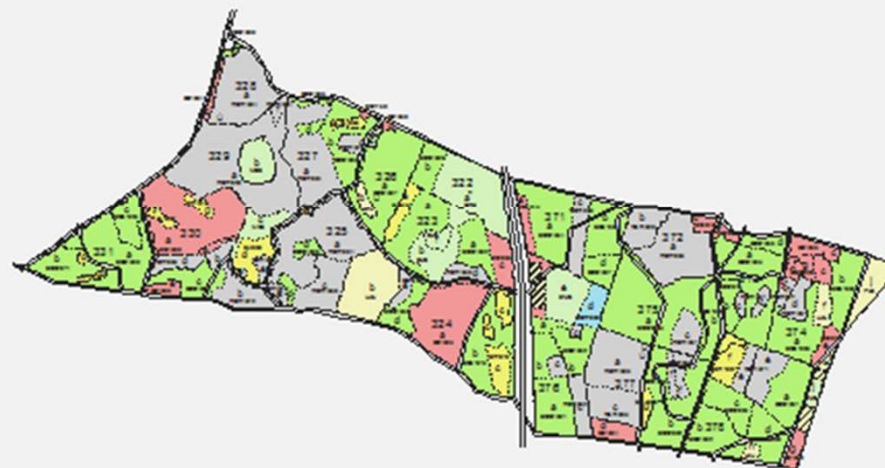
- Forestry as an imagined ideal versus a practice
 - Environmental history accounts of forestry
 - Present-day research
- Present-day implications
- Ways forward





DRIFTSPLAN FOR OSTRUP SKOV

2002-2012



EJER:
DEN KGL. VETERINÆR- OG LANDBOHØJSKOLE

ØVELSESPLAN I SKOV- OG NATURRESSOURCEPLANLÆGNING
FORÅRET 2002

UDARBEJDET AF:
JOHN HALFDAN BOJESSEN, JENS FRIIS LUND, RUNE SIMONSEN,
THOMAS SKOTT OG JESPER TRANBERG.

Participatory Forest Management in Tanzania
A socio-economic study on the implementation of PFM in Iringa District

Master Thesis
by
John Halfdan Boiesen S1971 and Jens Friis Lund S2001



Unit of Forestry
Department of Economics and Natural Resources
The Royal Veterinary and Agricultural University
Copenhagen, September 2003

Supervisor: Assistant Professor Thorsten Treue

What is forestry?

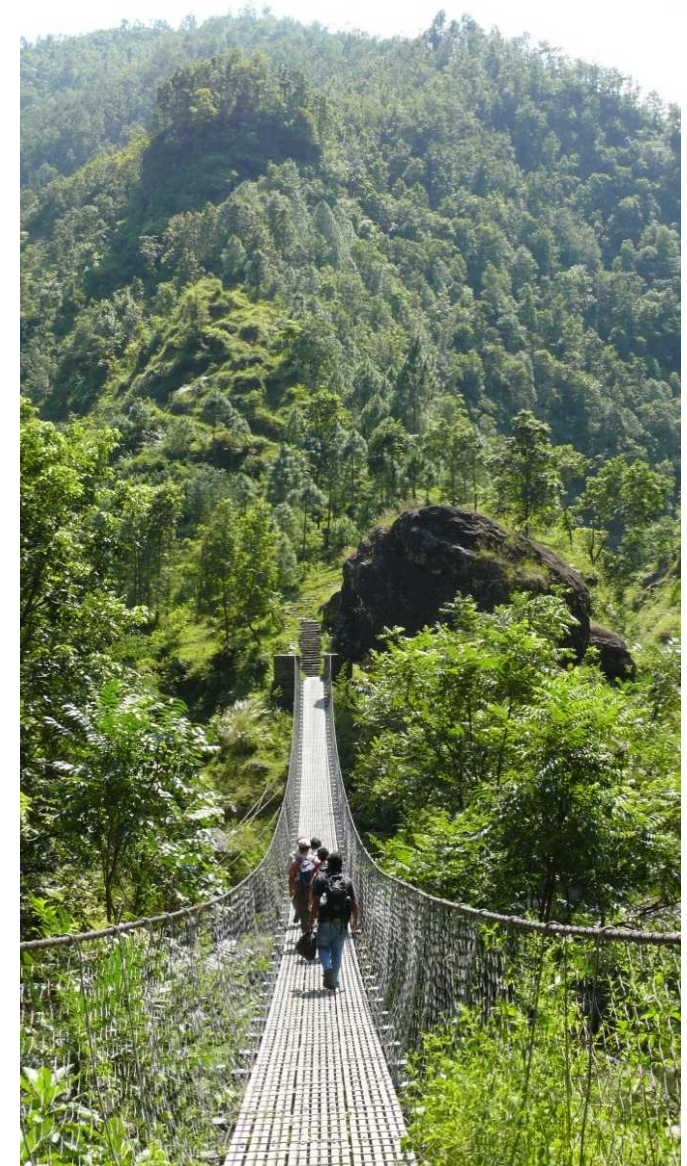
- Demarcation
- Measurement
- Modelling
- Management
- ...for timber



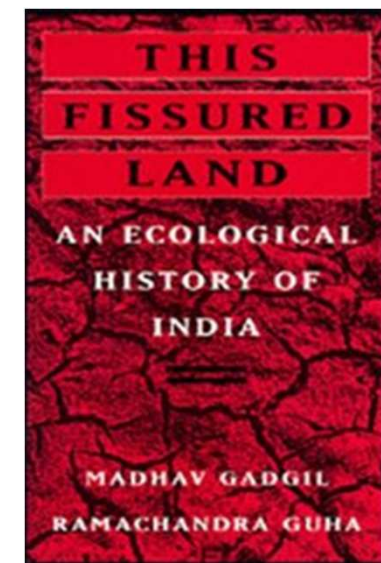
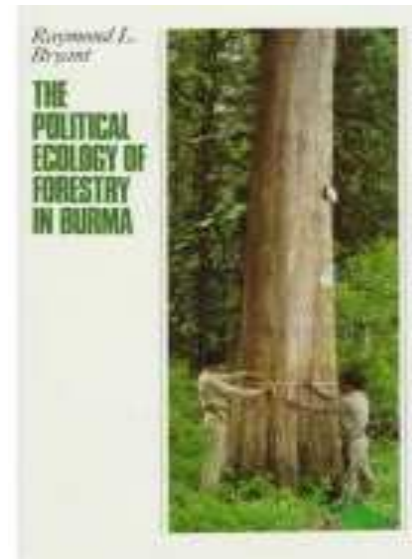
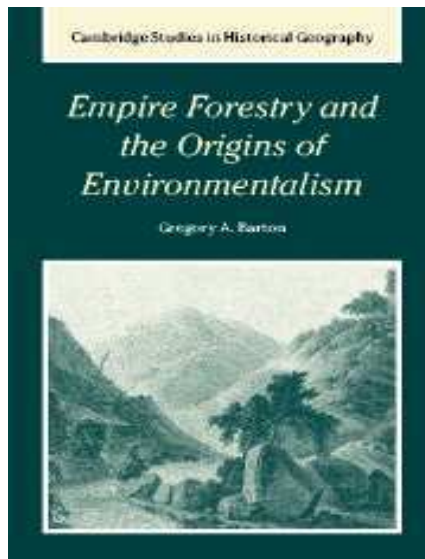
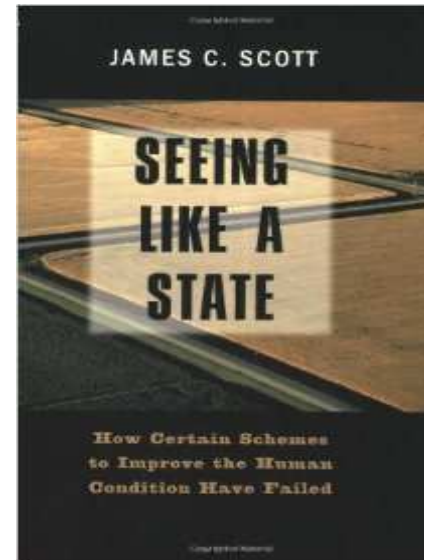
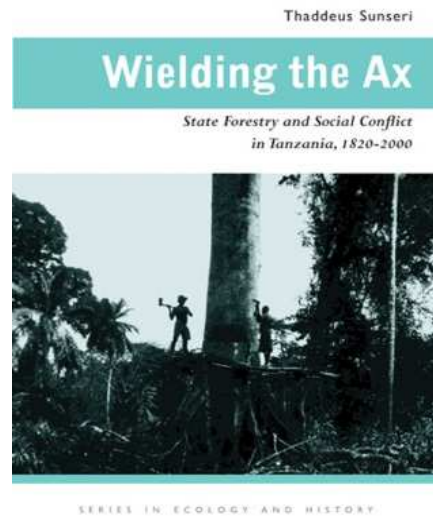
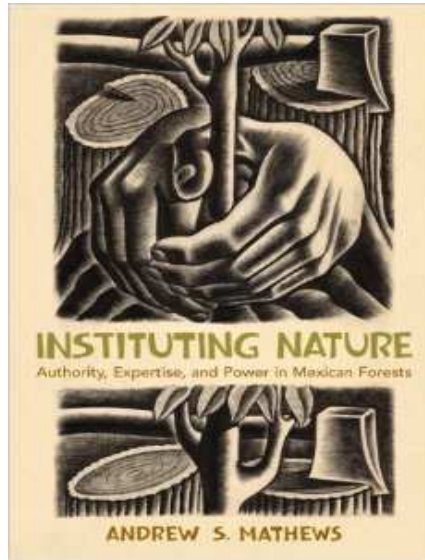
Source: <http://www.fao.org/docrep/k0050e/k0050e0f.jpg>

Forestry's journey through the World

- Developed in early 19th century central Europe
- Initially for taxation purposes
- Later, focus on rational and efficient production of timber and resource legibility
- Transformed (some) northern European forests
- Travelled through colonialism, imperialism, and post-colonial regimes of knowledge
- Remains the standard today



Lessons from the past



Thaddeus Sunseri

Wielding the Ax

*State Forestry and Social Conflict
in Tanzania, 1820-2000*



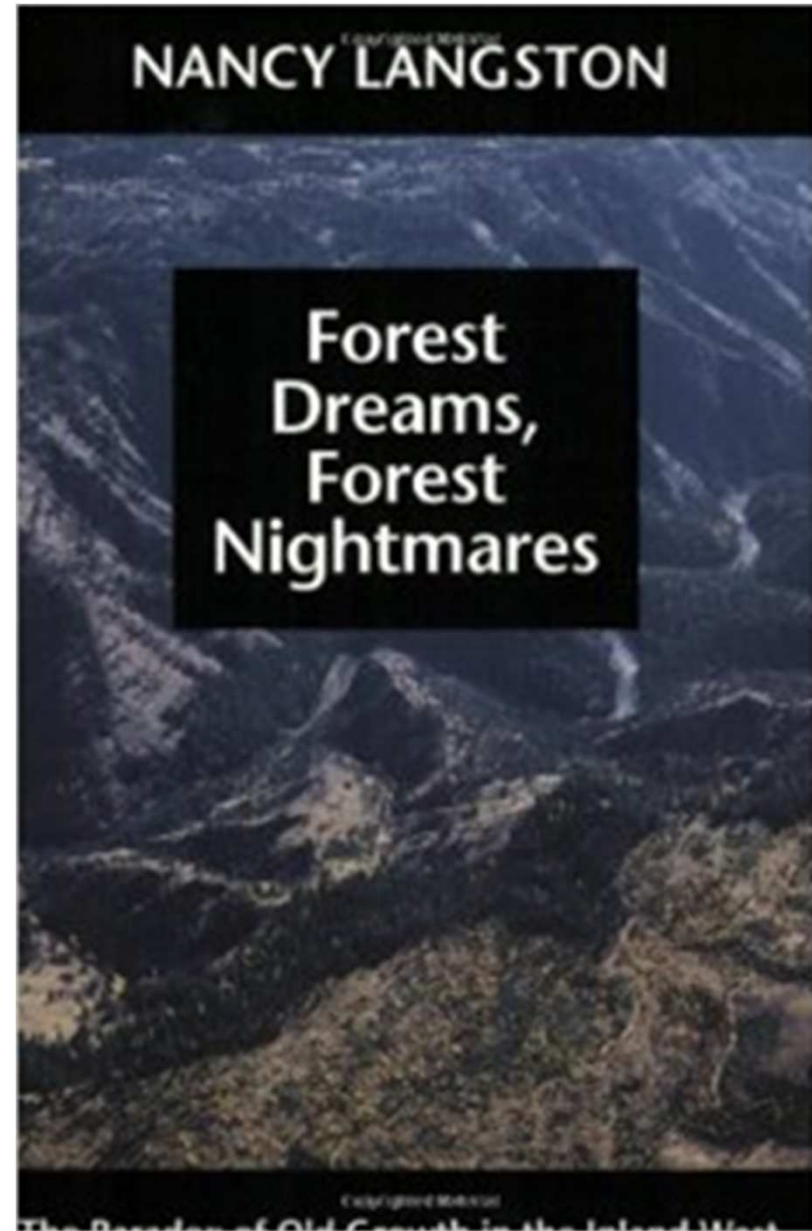
SERIES IN ECOLOGY AND HISTORY

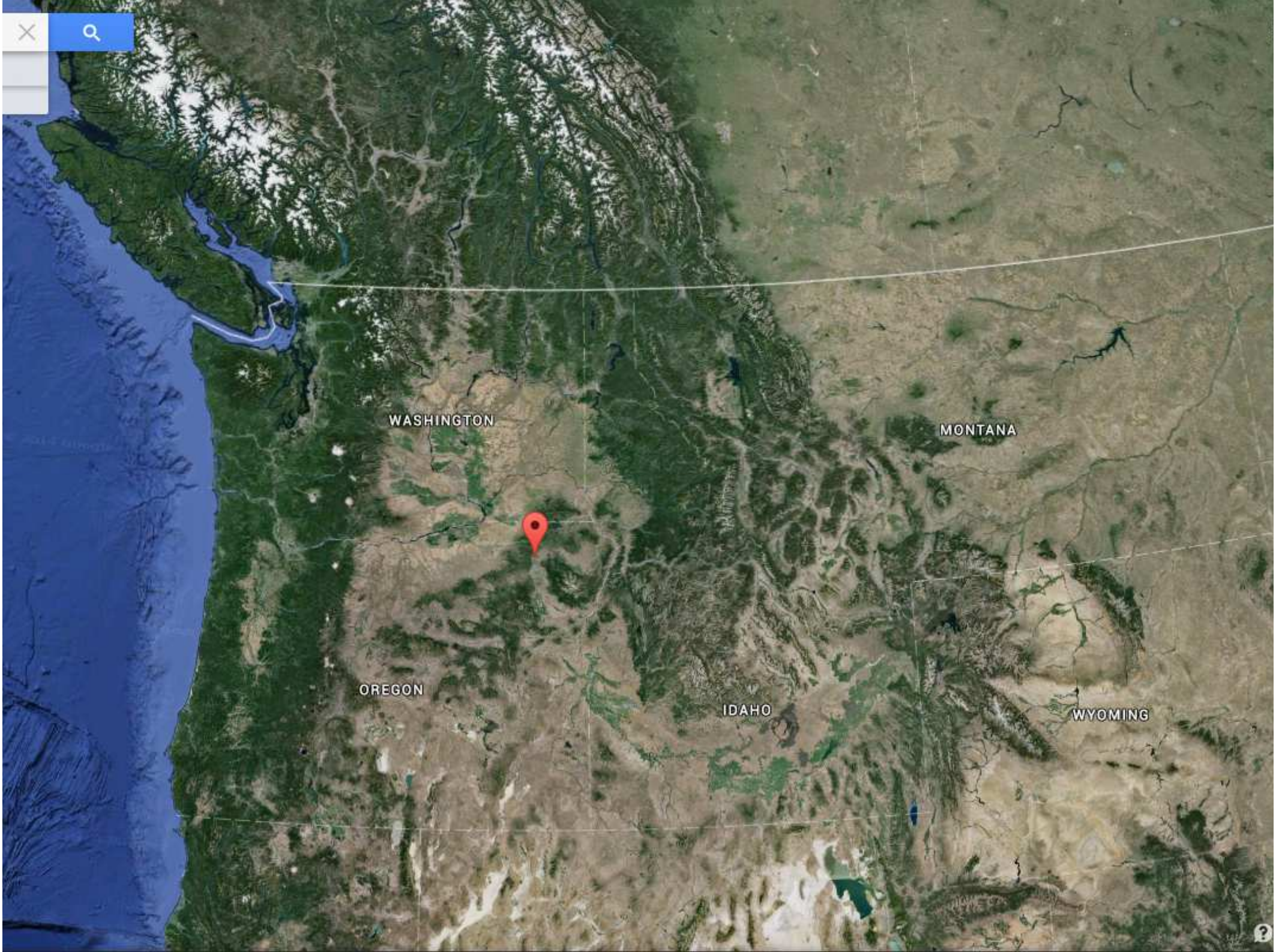
Past forestry conundrums

- *“Financial and other constraints meant that many forestry policies were delayed by several decades, were run with minimal resources, or had to be abruptly abandoned”*
(von Hellermann 2013, p.13)
- *“... the projection of authority over forests was not a linear story of progressive State control, but was negotiated constantly according to shifting constellations of power that were sometimes shaped by global events”*
(Sunseri 2009, p.xiii)
- *“The state regarded forest fires as completely unnatural even in pine and pine-oak forests where fire was essential for forest regeneration”*
(Mathews 2011, p.44)

Lessons from the past

- A complex and poorly understood forest ecology





WASHINGTON

MONTANA

OREGON

IDAHO

WYOMING



Blue mountains









Ecology remains challenged: Denmark, December 1999: two years' harvest felled by a storm



Ecology remains challenged:
Sweden, August 2014: Worst fire in 4 decades, 150 km² burned



Ecology remains challenged:
Chile 2016: Worst fire ever, ~3600 km² burned



Forestry – from timber to resilience?



Present conundrums for forestry: (continued) inadequate resources



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Promising Change, Delivering Continuity: REDD+ as Conservation Fad

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Participatory Forest Management

- Late 1980s onwards
- 7-8 pilot project efforts
- National level policy and legislative process
- Since early 2000s basket funding and nation-wide implementation through local government offices
- National-level PFM monitoring procedures
- Total funding at least 60 mio USD (2001)



National-level implementation

- According to official statistics PFM covers 7 of 48 mio ha of forest in Tanzania
- Yet, lots of this is work in progress...
 - Of 1,233 CBFM villages, only 409 are formally recognized
 - Of 1,052 JFM villages, only 171 are formally recognized
 - Between 2006 and 2012, only 18 CBFM and 22 JFM arrangements were added
- Lots of research on old PFM pilots (including my own), but very few examples of functioning PFM arrangements outside these areas

Enter REDD+

- 2008 onwards
- 8 pilot project efforts
- National level policy and legislative process
- National forest inventory and establishment of national carbon monitoring center
- Total funding at least 100 mio USD (2012)



Status

- 30 years of forest policy reform under the headings PFM and REDD+
- Comparable amounts of funding, policy development, and pilots
- Change in actual forest conservation and management outside a few (tens/hundreds?) villages with intensive donor support?



Present conundrums for Tanzanian forestry: disincentives for conservation

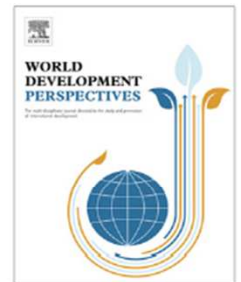
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World Development Perspectives

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Case report

Against all policies: Landscape level forest restoration in Tanzania

Eliezeri Sungusia^{a,b,*}, Jens Friis Lund^{b,c}

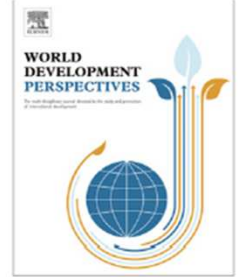
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- Costly inventory and planning requirements of low relevance to actual management and use
- Management and procedural oversight discriminates against VLFRs in competition with unreserved forests
- Creation of VLFRs forecloses future land-use changes
- RESULT: No incentive for villagers to reserve, manage and protect forests
- And this result hinges on, among other, inventory and planning requirements that are both costly for individual forests and inhibit broad-based implementation of PFM (thus reproducing the unfair competition from unreserved forests)

Present conundrums for forestry: limited relevance of management approach



Forest inventory, Tanzania. Photo Henrik Meilby

The logic of professionalization in participatory forestry

Four broad questions

- What is the quality of management plans?
- Do village-level forest managers use management plans?
- Do village-level forest managers know the development of their forests?
- Do village-level forest managers conserve their forests?
- Management plan review and analysis
- Interviews with village-level forest managers about their management
- Comparing results from inventory and remote sensing imagery analysis with local understandings
- Analysis of inventory and remote sensing imagery data

Four broad answers

- What is the quality of management plans?
- Do village-level forest managers use management plans?
- Do village-level forest managers know the development of their forests?
- Do village-level forest managers conserve their forests?
- Very low. Many instances of copy-paste
- No. Not to inform forest management, only to legitimate it.
- Yes. There is broad agreement between our and their understandings of trends in forest condition



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The scientific framing of forestry decentralization in Nepal[☆]

Rebecca Leigh Rutt^{a,*}, Bir Bahadur Khanal Chhetri^b, Ridish Pokharel^b, Santosh Rayamajhi^b,
Krishna Tiwari^b, Thorsten Treue^a

^a Global Development Division, Department of Food and Resource Economics, Faculty of Science, University of Copenhagen, Rolighedsvej 25, DK-1958 Frederiksberg C, Denmark

^b Institute of Forestry, Dhunge Sangu, Pokhara 33700, Nepal

- Repeated inventory results showed a decrease in standing stock of approximately 15% over the period of 2005–2010 – is that sustainable?
- Apparently so, because the 2005–2010 ‘over-harvesting’ falls within a 1998–2012 period of overall improvement (based on analysis of remote sensing imagery of crown cover of trees in different stages of maturity), i.e. the ‘over-harvesting’ was cutting of old growth forest.

Four broad answers

- What is the quality of management plans?
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- Do village-level forest managers conserve their forests?
- Very low. Many instances of copy-paste
- No. Not to inform forest management, only to legitimate it.
- Yes. There is broad agreement between our and their understandings of trends in forest condition
- Yes. Harvest may be higher than regrowth in old-growth forests



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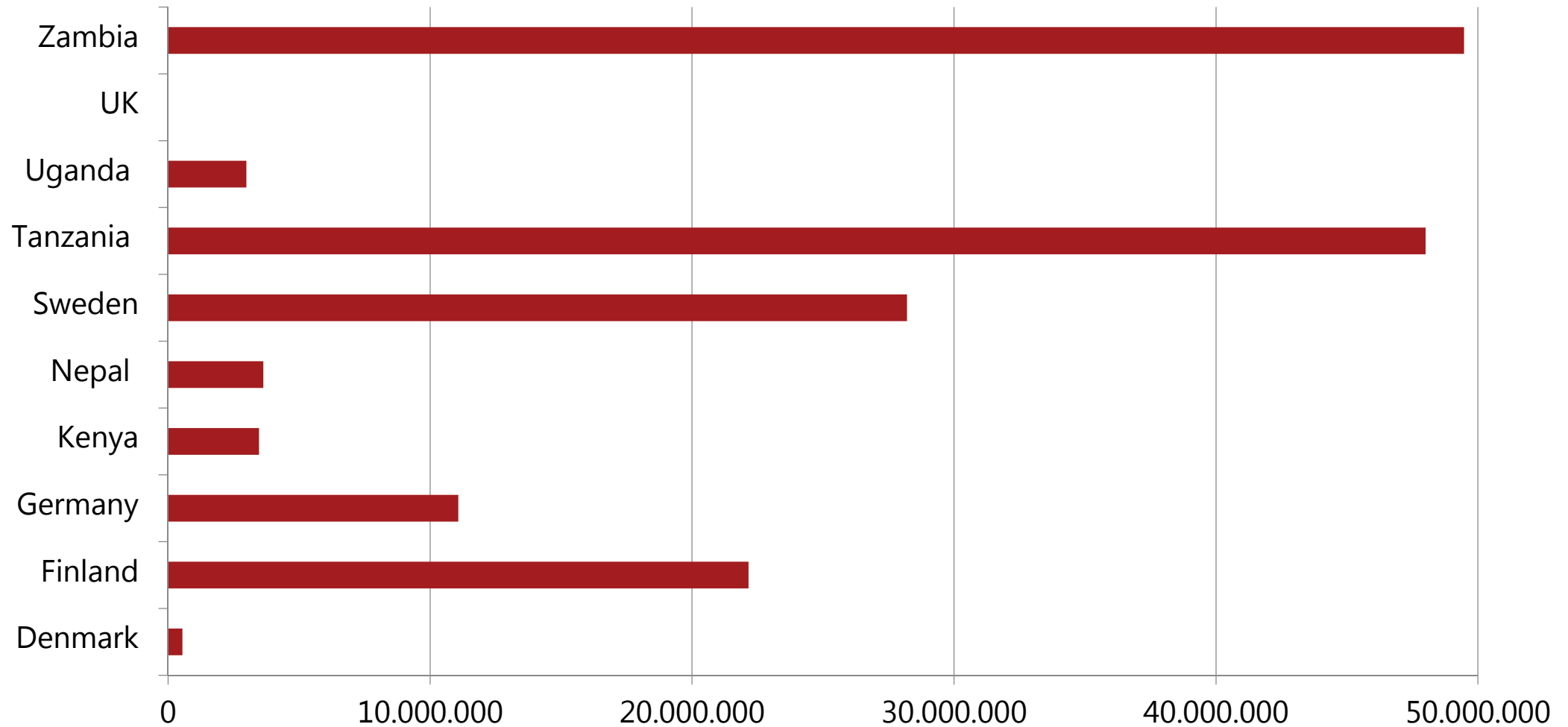
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- More than 5,000 community forestry management plans awaiting renewal...
- Out of the app. 20,000 community forests in Nepal most of which are less than 100 ha...

A(nother) pragmatist argument for simplification



Conclusions

- Forestry has never been implemented in larger areas of natural forests, due to:
 - Resource constraints
 - Market influences
- Forestry has never attained an understanding of complex natural forest ecosystems that would allow for modelling of their response to management
- Actual forest management of natural forests often focuses on other production than timber, thus defying the relevance of the standard scientific forestry model
- Actual forest management of natural forests by local people rests on other forms of knowledge that appear to perform well

Ways forward for forestry

– pragmatist policy recommendations

- Rethink the way we imagine and do forestry
- Simplify forest management planning requirements to:
 - Reduce costs of forestry approaches
 - Ensure that planning reflect the values produced by forests
 - Allow for wide implementation of forestry approaches
 - Produce varied and resilient forest ecosystems
 - Garner the support of local people for forestry
 - Reduce the risks of elite capture and tyranny of experts
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