

The rationale of forest operational plans in planning and managing community forests in Nepal



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- Introduction
- Objectives
- Progress
- First Paper



Introduction

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- Community Forestry is **self-governed autonomous institution**(Forest Act, 1993)
- Achieve twinned goals of **providing resources for the poorest of the poor and conserving forest ecosystems**
- Scientific forest management planning –safeguard the **environmental and economic benefits**

Introduction

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- Justified by lack of communities' **lack of forest management skills** and **for sustaining the forest product utilization**
- Statistically **sound inventories**
- Quality of plan depends on the **quality of inventory** carried out.

Introduction

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- **Threatened the quality of science**
- **Scientific Framing** – knowledge produced from misapplication of science (‘scientistic’ knowledge)
 - **co-production** of science and politics in **regaining control** over the forests resources
 - CF OPs and SciFMP- different forms of **knowledge framing**
 - **Recentralization**- scientific forestry gradually being stronger

Rationale

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- Science is used in an **authoritarian** manner
- **SciFMP**- stronger mechanism for state to gain control over forest resources
- **Government knowledge mandatory**
- **Distorted by** -guidelines and circulars
- The politics of scientific knowledge

Objective



The overall objective of the research is to assess the role of scientific forest management planning in communities' actual forest management practices and its effects on environmental outcomes in community forest of Nepal.

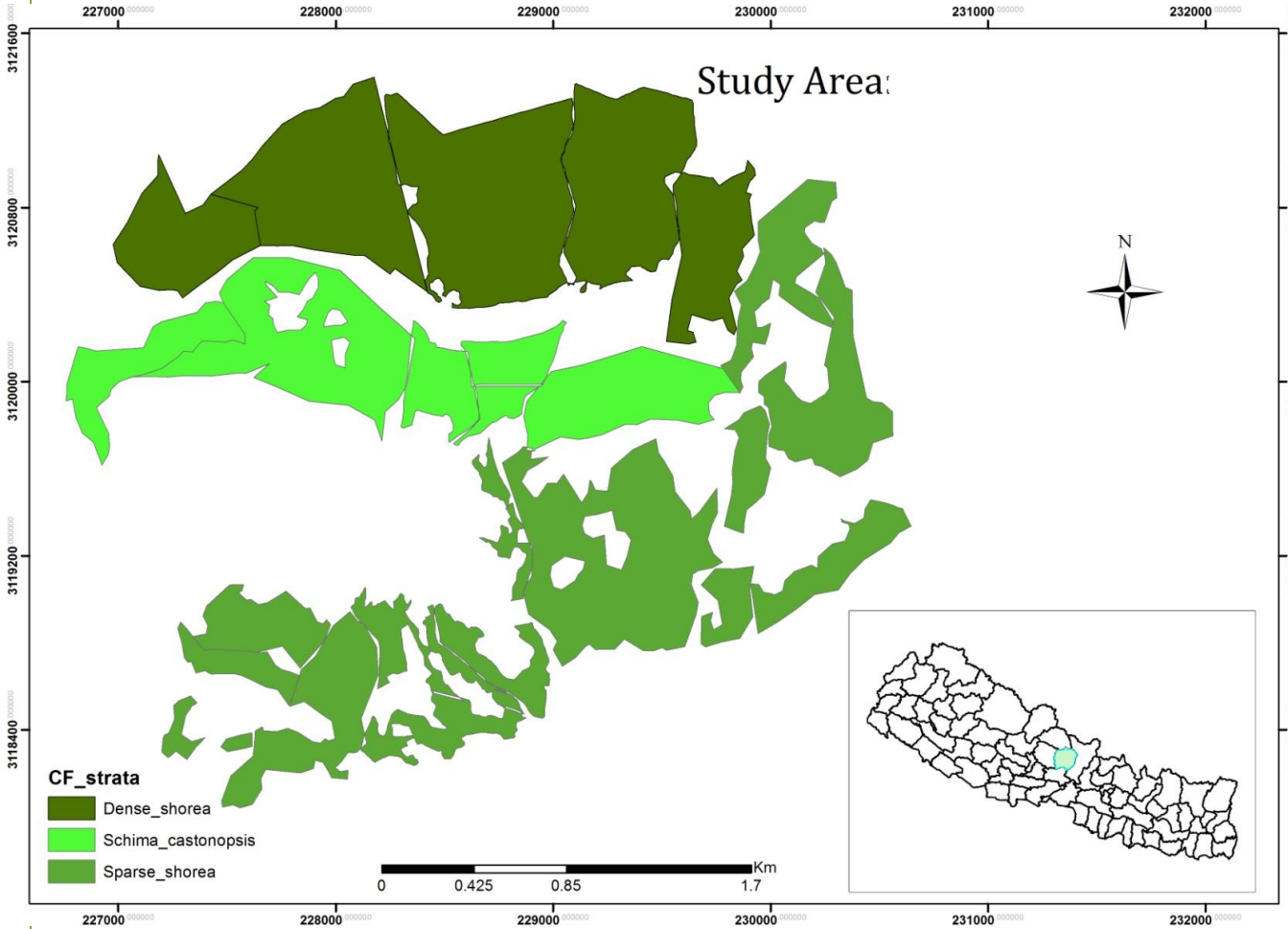
Specific Objectives

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- Examine technical quality of the forest operational plans and its influence on silvi-culture
- Assess the applicability of forest operational plans in planning and managing community forests from different actors' perspectives
- Examine the environmental outcomes of community forest and changes experienced by communities.
- Assess the efficacy of different spatial technologies to assess the environmental outcomes in CF

Study area

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| CFUG | Area | HHs |
|------|-------|-----|
| 1 | 40.34 | 104 |
| 2 | 14.54 | 60 |
| 3 | 13.36 | 31 |
| 4 | 85.1 | 86 |
| 5 | 12.04 | 50 |
| 6 | 64.92 | 54 |
| 7 | 94.22 | 61 |
| 8 | 89.49 | 116 |
| 9 | 84.74 | 58 |

Overall Progress

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- Course work
- Field work progress
 - Forest Inventory
 - HHs survey
 - Data collection for satellite image analysis
 - Key informant survey
- Paper communicated in conference
- **Paper outline/manuscript preparation**
- Key highlights from paper I

Paper outline

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| Paper I | Progress/ status |
|--|---|
| Politics of Getting the Numbers Right: Forest Inventory in Community Forestry of Nepal | Field data collection- Forest Inventory completed Review of CFOPs done Interviewing the CFUG chairpersons completed Formal/Informal talks with Key persons and DFO staff on-going Data analysis done Very draft paper prepared Abstract accepted by IUFRO-AO, Beijing for oral presentation on- Politics of scientification in community forestry of Nepal -Abstract submitted to IUFRO (Multi-disciplinary science conference) Indonesia on ‘The Politics of Getting the Number Right- Forest Inventory in Community Forestry in Nepal’ |

Paper outline

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| Paper | Progress/ status |
|---|--|
| Relevancy of forest management plans in management decisions in community forestry of Nepal | Community level stakeholders consulted. 120 Households surveyed Review of 30 CFOPs conducted. -academic and right holder institution not completed. Abstract prepared to be submitted to Commonwealth conference |
| Can Satellite image alone assess change in the land cover? | Field data for satellite image analysis collected Analysis – on going |
| Environmental outcomes of community forestry in Nepal: The role of operational plans | Participatory resource mapping conducted in 9 CFUGs Household survey of 120 hhs completed Formal/ Informal talks with DFO staff- ongoing |

Draft Paper:
Politics of getting the number
right: Forest Inventory in
Community Forestry

Rationale

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- The scientific forestry plans, **precondition** for transferring the rights to local community forest user groups (CFUGs).
- Rationale: **sustaining the forest products** and concerns over local **communities' lack of forest management skills** (Ribot et al., 2010).
- The relevancy of such as only to **control the power** rather than managing the forest sustainably (Ojha, 2008; Ribot et. al., 2010; Hull et. al., 2010; Faye, 2014, Rutt et. al., 2014).

Rationale

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- Several researches show technical inventory based operational plan take on **significance beyond simple management documents** (Alborg and Nightingale, 2012).
- The management plan requires technical knowledge: an area where **foresters claim monopoly** (Paudel & Ojha, 2007).

Research Methods

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- Case study approach-
CFUGs as case
 - Normal
 - SciFM
- Mixed methods approach
 - Quantitative
 - Forest Resource Assessment
 - Qualitative
 - ✦ Analysis of the CF OPs
 - ✦ Stakeholder consultation
 - ✦ Observation



Analytical framework?

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- Forest officials manipulates inventory to hold power on community forest
 - Forest inventory process
 - Inventory results comparative analysis
 - Explore reasons for observed situation
 - Use of inventory results in management decisions
- Forest inventory as a case of symbolic violence or structural power ????
 - Value belief, trust of users

4.1 Process of Inventory

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- Inventory conducted is not following Forest Inventory Guideline prepared by the government.
 - Short-cut approaches
 - No proper procedure- differs according to person
 - Incentives

'For us renewing CFOP is you need to pay the cost of printing and binding and if we have some adjustments/modifications to be made we can inform the DFO staff and everything is done

Guidelines non-compliance

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- CF OPs sampling design is poorly based on inventory guideline
- No of sample plots
 - Mismatch between the sample number with 0.05 ha and 0.01 ha
- Sample size-
 - small size of sample with few sample plots
- Sampling intensity-
 - 0.1% for degraded forest
 - Annual Cut (Supply potential) was under-estimated

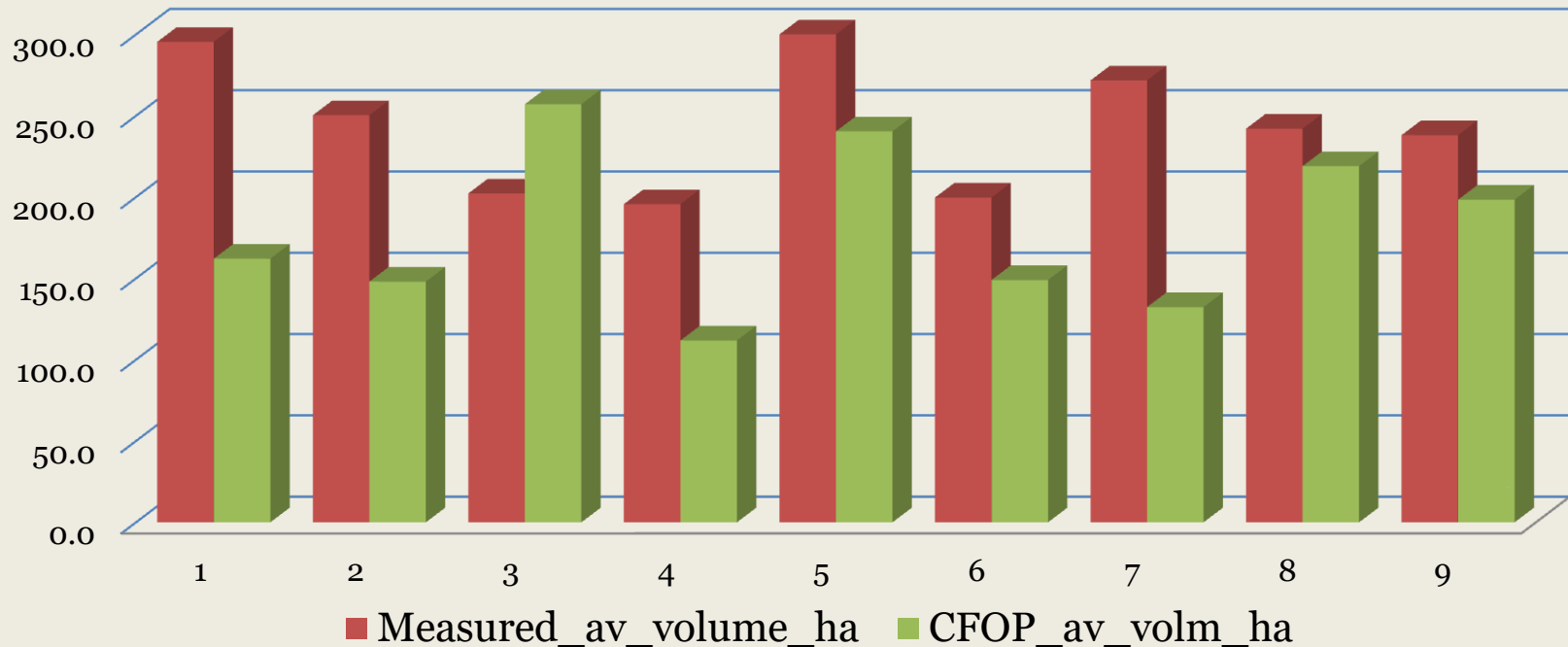
4.2 Comparison of Inventory Results

| CF code | Mean GS Vol (cu.m/ha) | OP mean GS Vol (cu.m/ha) | Difference in mean | P-value |
|---------|-----------------------|--------------------------|--------------------|---------|
| 1 | 295.4 | 162.1 | 133.3 | 0.005 |
| 2 | 250.3 | 148.0 | 102.3 | 0.000 |
| 3 | 202.2 | 257.1 | -54.9 | 0.003 |
| 4 | 195.6 | 111.8 | 83.8 | 0.001 |
| 5 | 311.5 | 240.4 | 71.1 | 0.074 |
| 6 | 199.7 | 149.0 | 50.7 | 0.06 |
| 7 | 271.7 | 132.3 | 139.4 | 0.00 |
| 8 | 242.0 | 219.0 | 23 | 0.311 |
| 9 | 238.1 | 198.4 | 39.7 | 0.067 |

Comparison of Inventory Results

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Difference in average volume per ha



- Inventory results varies between two cases (1-5- normal CFOP, 6-9 SciFM), however inventory results of SciFM is more valid in comparison to our study

Reasons for variation

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- **Limited Human resources:**
 - Only one technical staff added in 20 years period
 - No of CFUGs increased by more than 90% in the same period
- **Cost of inventory:**
 - Limited cost- Rs 5000 allocated by government (US\$ 5)
 - Inadequate (inventories costly)
- **Government circulars:**
 - Ban on green tree felling
 - CIIA circular- demotivating the DFO
 - Political scenario

Inventory Illusions

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- The pages in the CF OP showing inventory results are just to keep the users in dark
 - Never inventoried
 - If ever, then within limited time
 - Just walking few meters inside the forest
- Playing with the numbers -politics of getting the numbers 'right'

Inventory- Knowledge basis for decision making?

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- CF Inventory guideline is not the sole document guiding decisions in annual forest product harvesting- Tool for controlling timber harvest
 - Department circulars and guidelines
 - ✦ 178 m³/ha and 85% of the total annual harvest can be extracted for internal use. CIIA induced MFSC circular/decree
 - ✦ Increment-1.5%-2%
 - ✦ Ban on green timber harvest
 - ✦ Internal circulations/verbal communications-
 - ✦ limiting the harvest/no out side sale of timber



Inventory- Knowledge basis for decision making?

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| CF Code | GS volume m3/ha) calculated from first hand (raw) | CFOP calculated GS volume (m3/ha) | Summary CFOP | Remarks |
|---------|---|-----------------------------------|--------------|--|
| 1 | No raw data provided in CFOP | | | |
| 2 | 472.31 | 142.76 | 142.76 | No adjustment in GS volume |
| 3 | 212.27 | 257.13 | 163.96 | Adjustments to reduce the GS volume to less than 178 cu m per ha |
| 4 | 110.23 | 110.16 | 110.14 | No adjustment in GS volume |
| 5 | 204.78 | 236.58 | 118.27 | Adjustments to reduce the GS volume to less than 178 cu m per ha |

Inventory- Knowledge basis for decision making?

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- No timber in market meant no reason for DFO presence - the rules were flexible.
 - Presence of DFO staff during timber harvest.
- None of the CFUG chairpersons in case I have fully read the CF OP Nor have they participated in inventory works
- CF OP renewal- rent seeking
 - In practice the CFUGs have to pay the cost in the form of ‘printing the document’

Discussion

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- Rutt et. al., (2014) found CFOPs to be **superfluous, technically flawed and burdensome** bureaucratic measures
- Inventory result is underestimated in our case which contradict with Rutt et al, (2014), which is mostly because of recent government circulars
- Forest inventory has less role in forest management activities and **resemble each other** in language, format and practical strategies (Bhattacharya and Basnyat, 2003, Devkota, 2010; Giri and Ojha, 2011)

Discussion

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- Dhital et al., (2003), where only 21.53 percent of the community forest were inventoried and incorporated in forest operational plans.
- Vandergeest & Peluso (2006) scientific framing of forestry is **only paper strength** in the form of management plans.
- The detailed, externally imposed, quantitative forestry science which in itself is questioned in the recent era is **neither useful nor of any interest** by CFUGs rather it servers the hidden interest of technocrats and powerful elites (Paudel & Ojha, 2007).

Conclusion

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- Forest inventories are **manipulated** and have less practical relevance
- Inventory provisions serve to **establish techno-bureaucratic authority**
- Relevancy of forest inventory further remained in questions with recent **administrative decisions**
- Community forestry inventories appear to act as a political means of **getting the numbers right** to satisfy bureaucratic requirements, rather than a tool for guiding forest management decisions.



THANK YOU