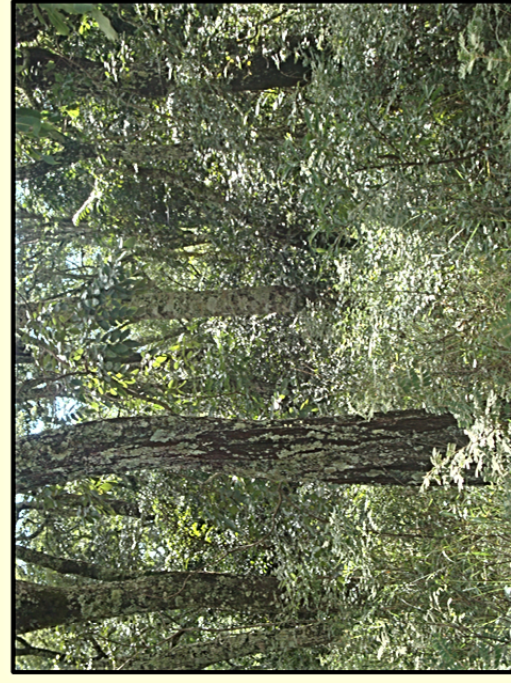


# Understanding drivers of deforestation in the miombo woodlands of Zambia and Mozambique (1990 - 2005)

## why governance matters

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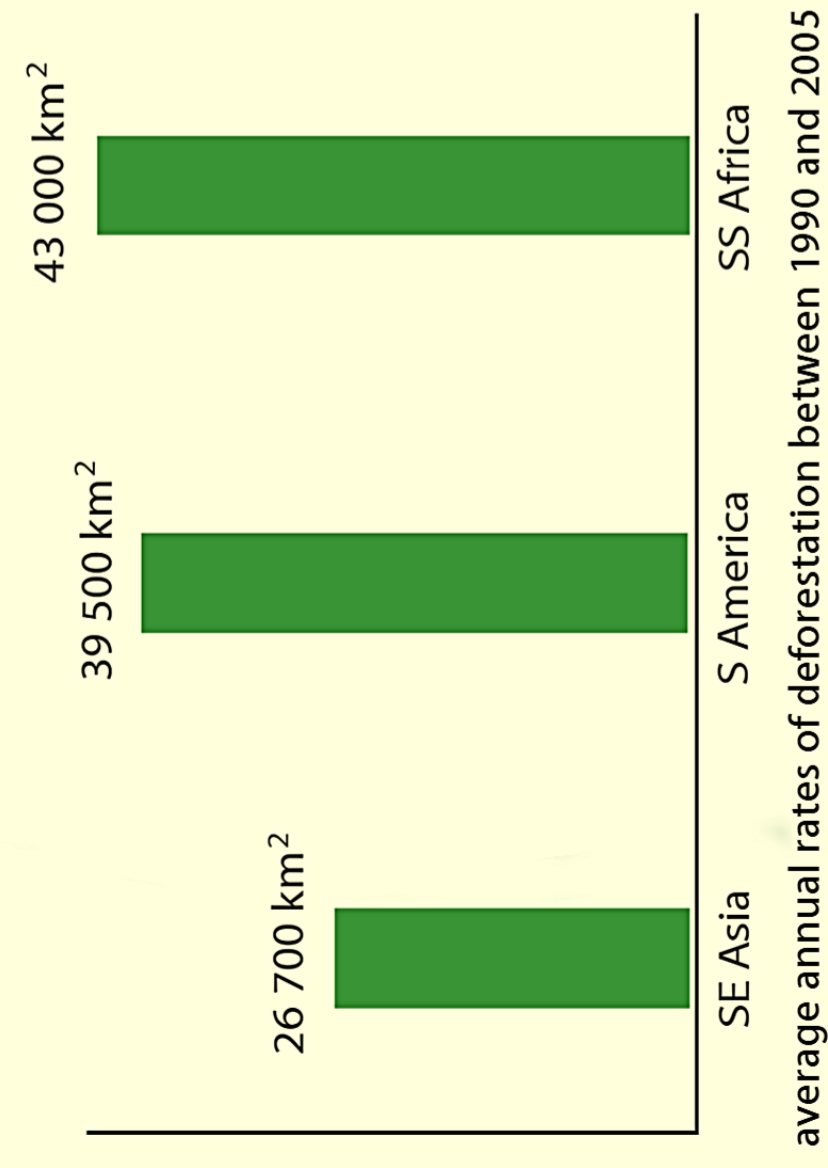
### PROBLEM



old-growth miombo woodland  
Solwezi, North-Western Zambia



forest cleared for agriculture  
Mpika, Western Zambia



average annual rates of deforestation between 1990 and 2005



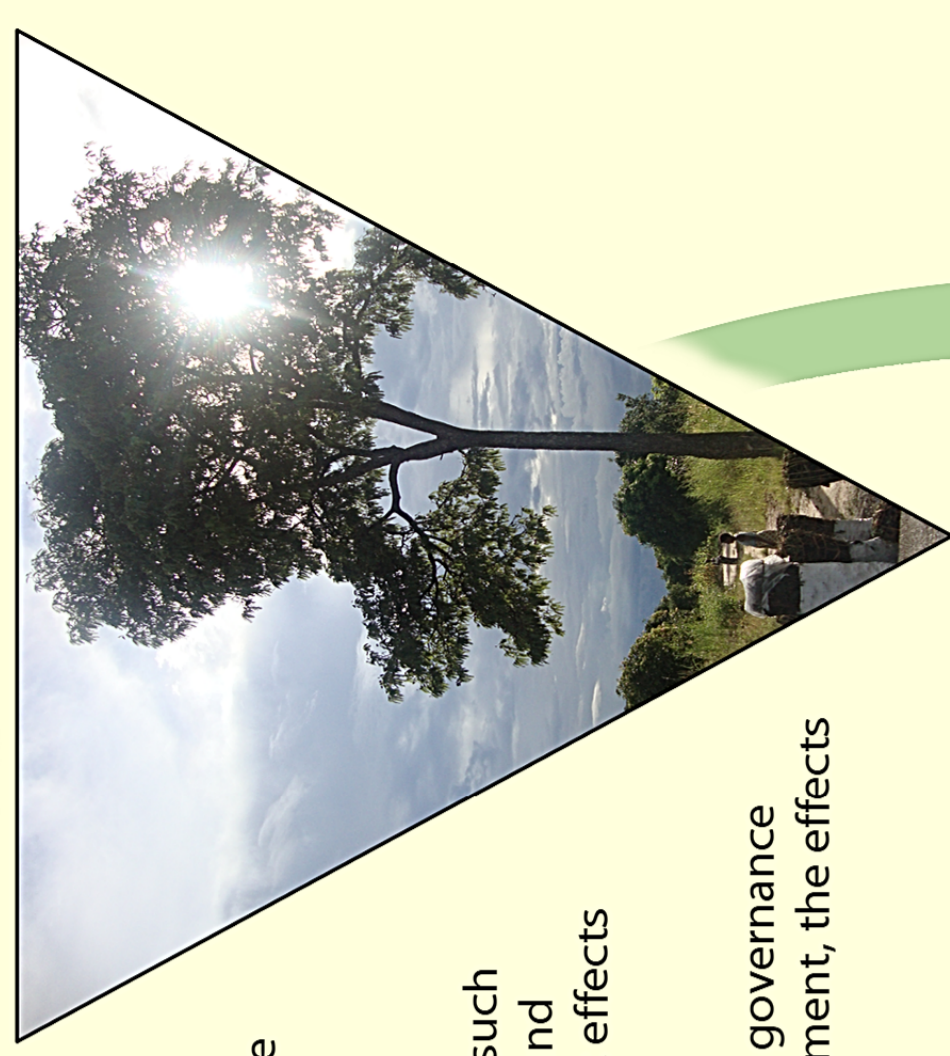
### RESULTS

Zambia (8 weeks fieldwork February 2011 - April 2011)	OFFICIAL EXPLANATION 300 000 ha p/a
<p>↑ agricultural expansion + demand for woodfuel</p> <p>↑ poverty + urban population growth + no electricity + subsistence agriculture</p> <p>Forest management highly centralised &amp; underfunded, yet requires local management + dedicated monitoring &amp; enforcement.</p> <p>Institutional sclerosis &amp; vested interests have prevented Zambia from implementing necessary policy reforms.</p> <p>Problem compounded by dual system of land tenure (designed to accommodate traditional authorities) which creates incentives to use land unsustainably.</p> <p>Poor governance in other sectors (agriculture / mining &amp; minerals) further exacerbates the effects of poor governance in the forest sector.</p> <p>Official explanation is convenient excuse for policymakers to shift blame, while ignoring governance gaps at the heart of the problem.</p>	<p>EVIDENCE &amp; FINDINGS 600 000 ha p/a</p>

Mozambique (8 weeks planned fieldwork May 2011 - July 2011)	?

### THEORY

DEMOGRAPHICS      ECONOMICS



GOVERNANCE

Traditional explanations for deforestation focus on demographic changes and economic development.

More recently, scholars have realised that institutions appear to mediate both the enabling and constraining effect of these traditional drivers, defining their impact and generating distinctive policy patterns.

The existence of certain types of institutional arrangements, such as the strong enforcement of property rights and openness and transparency, appears to partially mitigate many of the worst effects of deforestation.

However, for other types of institutions, such as global forest governance arrangements and local common property resource management, the effects are less certain.

### QUESTION

Zambia and Mozambique's demographic, economic and governance indicators are roughly the same (see table below). Given what the theory suggests, we might reasonably expect both countries to have experienced similar levels of deforestation in recent years.

However, as the final table entry shows, the rate of deforestation in Mozambique is less than a third of Zambia's. Even taking into account mitigating factors, such as the lingering effects of civil conflict, and likely differences between reported and actual deforestation rates, the discrepancy is striking.

The goal then, is to try and explain whether that discrepancy is attributable to different forms of policymaking and institutional design, or whether it is the result of other, unaccounted for factors and/or unexplained phenomena.

	Zambia	Mozambique
Land Area km²	752 618	799 380
Population	12 935 368	22 894 294
Population growth	3.1%	1.8%
GDP (millions US\$)	12 547	10 073
GDP per capita (US\$)	970	440
Recent GDP growth (2000 - 2005)	6.3%	6.3%
Poverty rate	68%	55%
Main exports	copper/cobalt (64%)	aluminium (60%)
External debt	23%	39%
Economic Freedom Index	100 of 179	111 of 179
Democracy Index	97 of 167	92 of 167
Corruption Index	101 of 178	116 of 178
Human Development Index	150 of 169	165 of 169
Forest as a proportion of total land	57.1	24.6
Forest Cover in 1990 (ha)	49 124	20 012
Forest Cover in 2005 (ha)	42 452	19 262
Total rate of deforestation	13.6%	3.6%