

Unpacking Decentralization

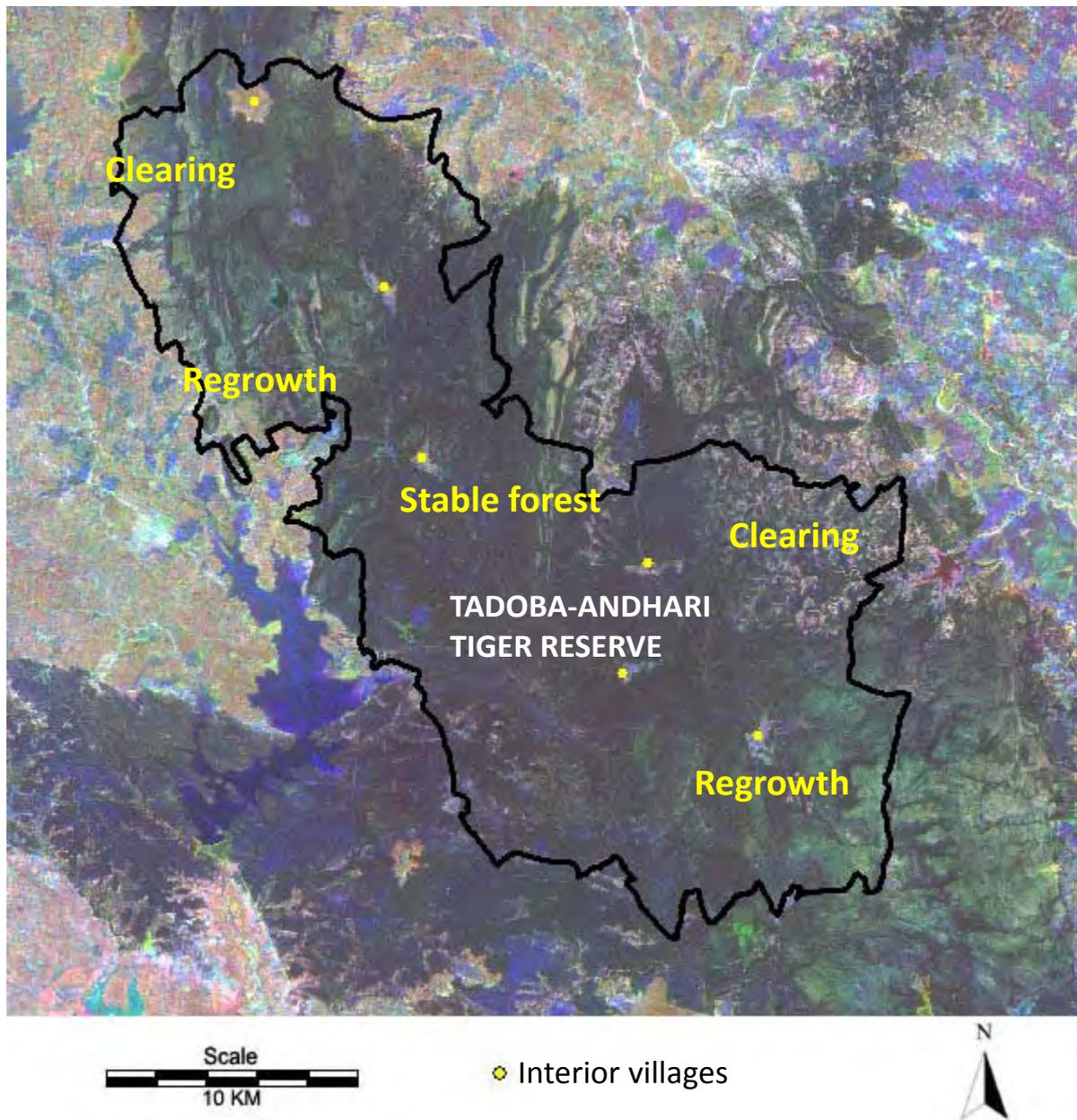
Krister Andersson, Jacqui Bauer, Pam Jagger, Marty Luckert, Ruth Meinzen-Dick, Esther Mwangi, Elinor Ostrom

What is Our “Charge”

- **Study impact of decentralization reforms on forest sustainability and livelihoods**
- **Decentralization has become a policy fad**
- **Why?**
- **Multiple failures of relying on a prior “panacea”**
 - **Fear of the tragedy of the commons whenever forests (& other common-pool resources) were not owned privately or by national government**
 - **Moved many forests into central government ownership**
 - **Eliminated indigenous institutions- they were perceived to be “open access” because institutions not codified in public legislation**

Centralization Policies

- **Failed in many (but not *all*) locations**
 - Insufficient budgets
 - Lack of funds to pay guards well
 - Guards overworked
 - Poor forest management conditions
- **To understand -- Lets take a little look at some national parks in India – raises some key questions about government protected areas**
- **Lets first examine an understaffed tiger reserve from the air – Tadoba-Andhari Tiger Reserve**



Multi-temporal Landsat color composite, 1972-1989-2001, landscape surrounding Tadoba-Andhari Tiger Reserve, India.

Multiple Patterns in TATR

- **Stable forests in the core**
- **Park guards are not able to control harvesting along sections of the borders**
- **Complementary field studies find**
 - **Consistent harvesting of non-timber forest products**
 - **Existence of considerable conflict between guards and local people**
 - **Ostrom, Elinor and Harini Nagendra. 2006. ““Insights on Linking Forests, Trees, and People from the Air, on the Ground, and in the Laboratory.” *PNAS* 103(51): 19224–19231.**



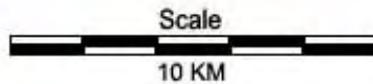
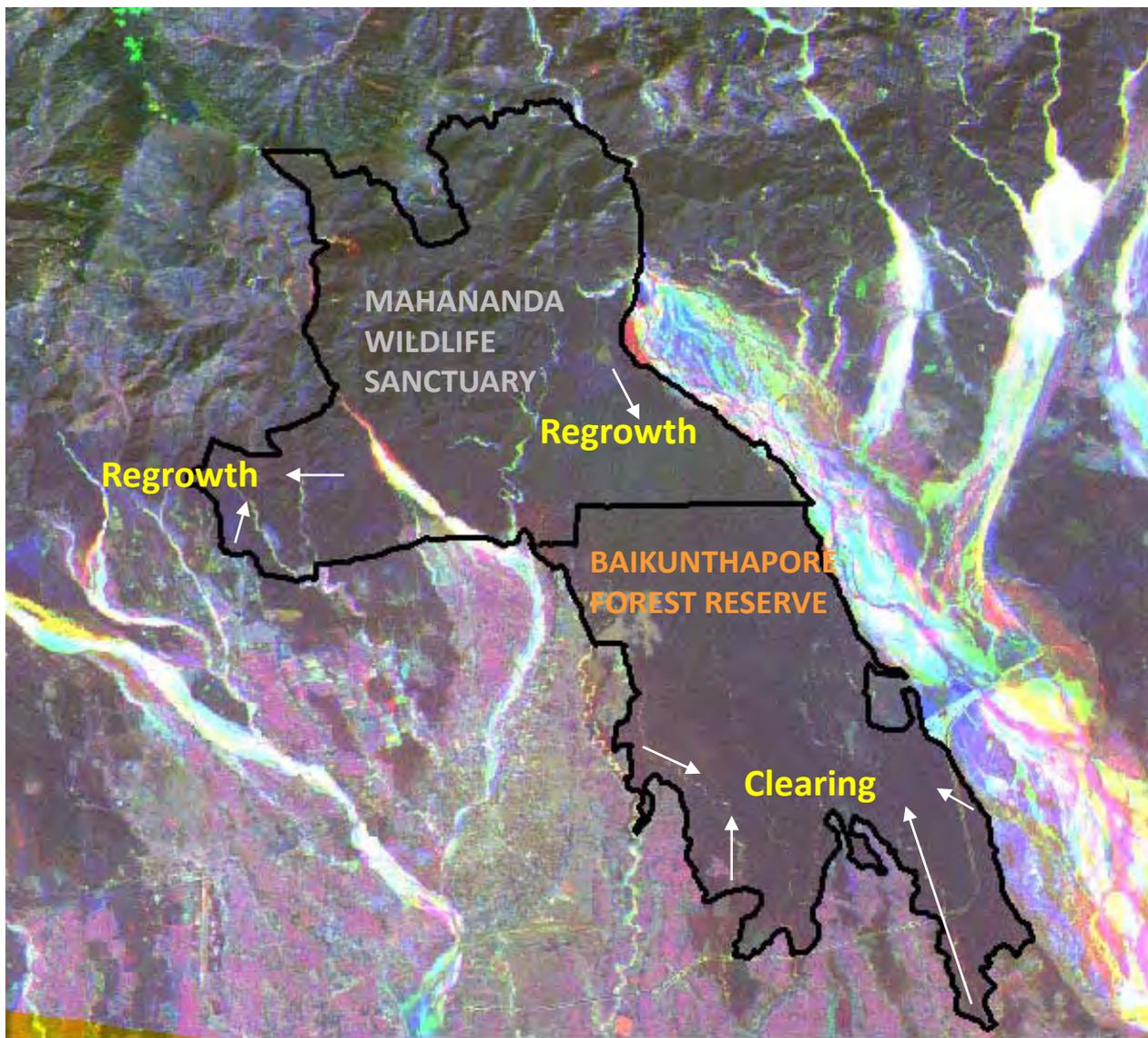
Women harvesting thatch grass from within the TATR - while the forest ranger accompanying our research team looks on helplessly.



Cattle entering the TATR boundary (marked by the yellow topped pillar in the background) on their daily foraging beat.

Two More Protected Areas in India

- **The Mahananda Wildlife Sanctuary (MWS)**
– a National park with a substantial budget –
on the north of the next map
- **Substantial regrowth in MWS.**
- **Baikunthapore Reserve Forest (BRF) with a
much lower budget – on the south**
- **Budget constraints of BRF associated with
more clearing in the south**



Multi-temporal Landsat color composite, 1977-1990-2001. Landscape surrounding MWS and BFR India.



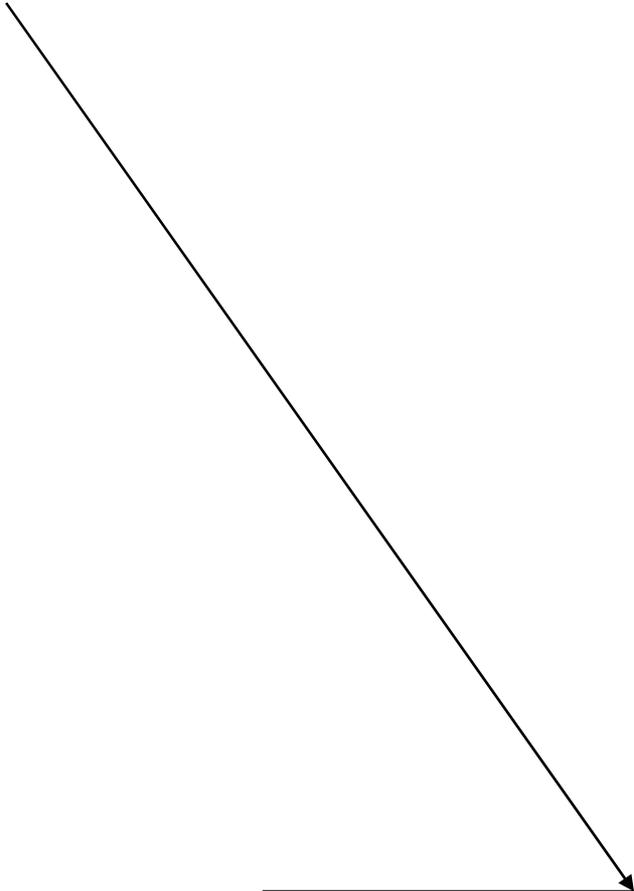
Bicycles and trucks confiscated from timber poachers stealing large logs

Many (but not All) Government-Owned Forests Faced Similar Problems

- One exception— Central Forest Reserves in West Mengo Region of Uganda show high performance
 - Regular markings of forest boundaries by locals & officials
 - Locals could harvest NTFPs and helped monitor
 - BUT recent decentralization policies have changed this
- Lots of policy advice to “de” centralization to gain the benefits shown to occur in many “self-governed” forests
- Lots of pressure to “de” centralize
- But this has proved to be an overly simplified policy
 - Vogt, Nathan, Abwoli Banana, William Gombya-Ssembajjwe, and Joseph Bahati. 2006. “Understanding the Stability of Forest Reserve Boundaries in the West Mengo Region of Uganda.” *Ecology and Society* 11(1): 38.

How Do we Begin to Unpack Decentralization?

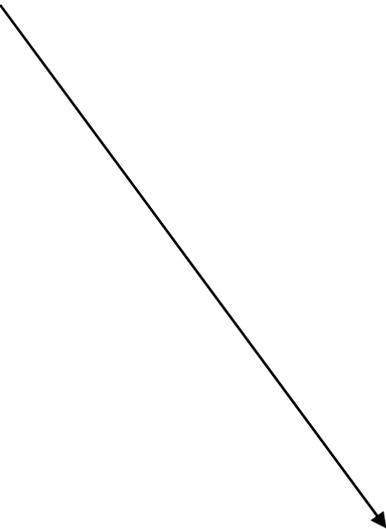
Decentralization



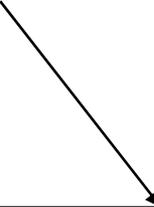
Outcomes

Livelihoods ← → Sustainability

Decentralization

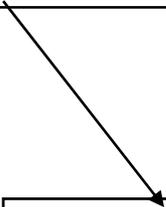


Behavior

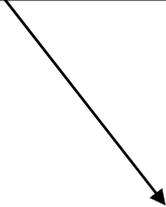


Outcomes
Livelihoods ← → Sustainability

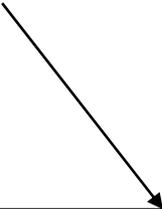
Decentralization



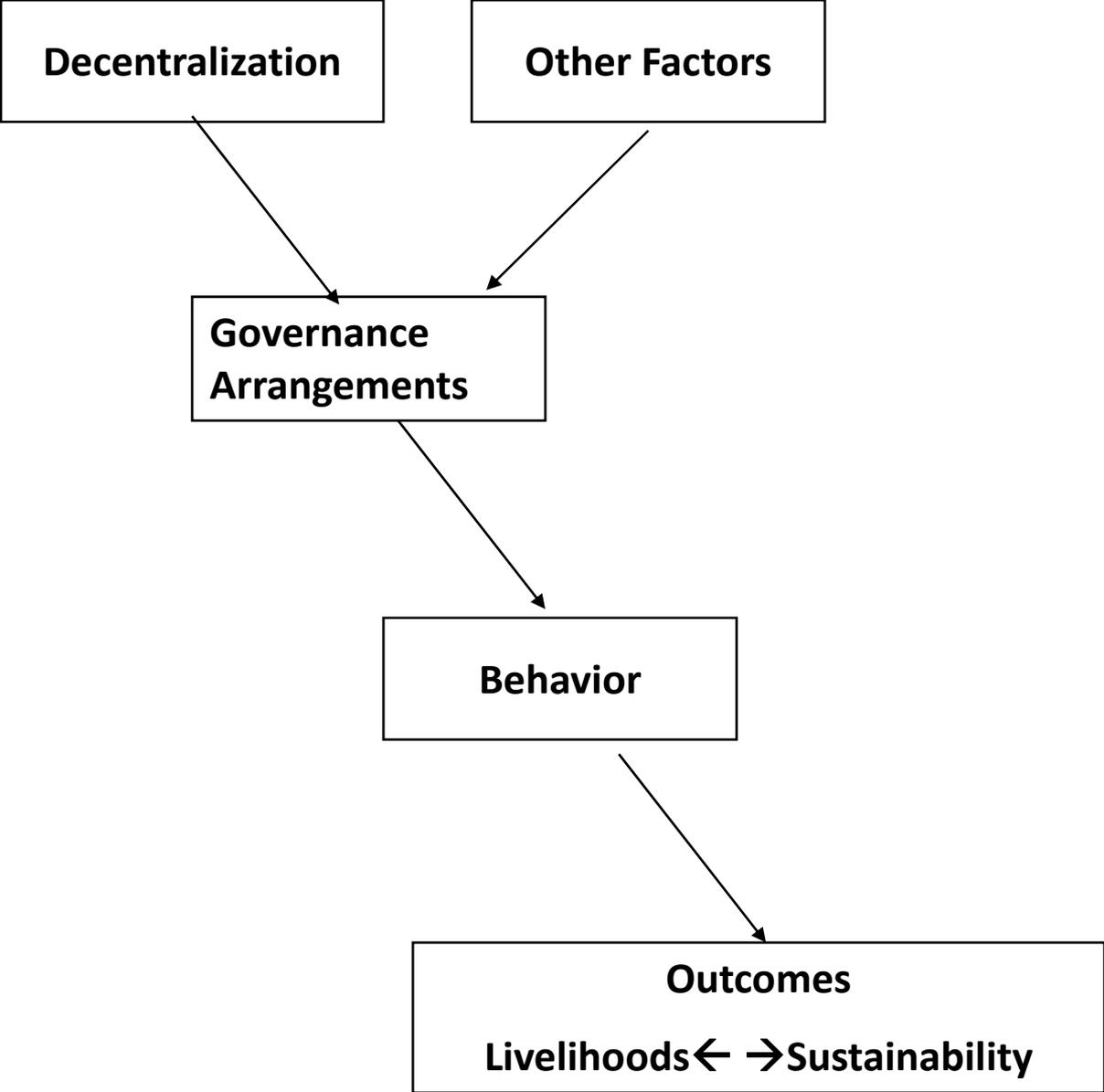
**Governance
Arrangements**

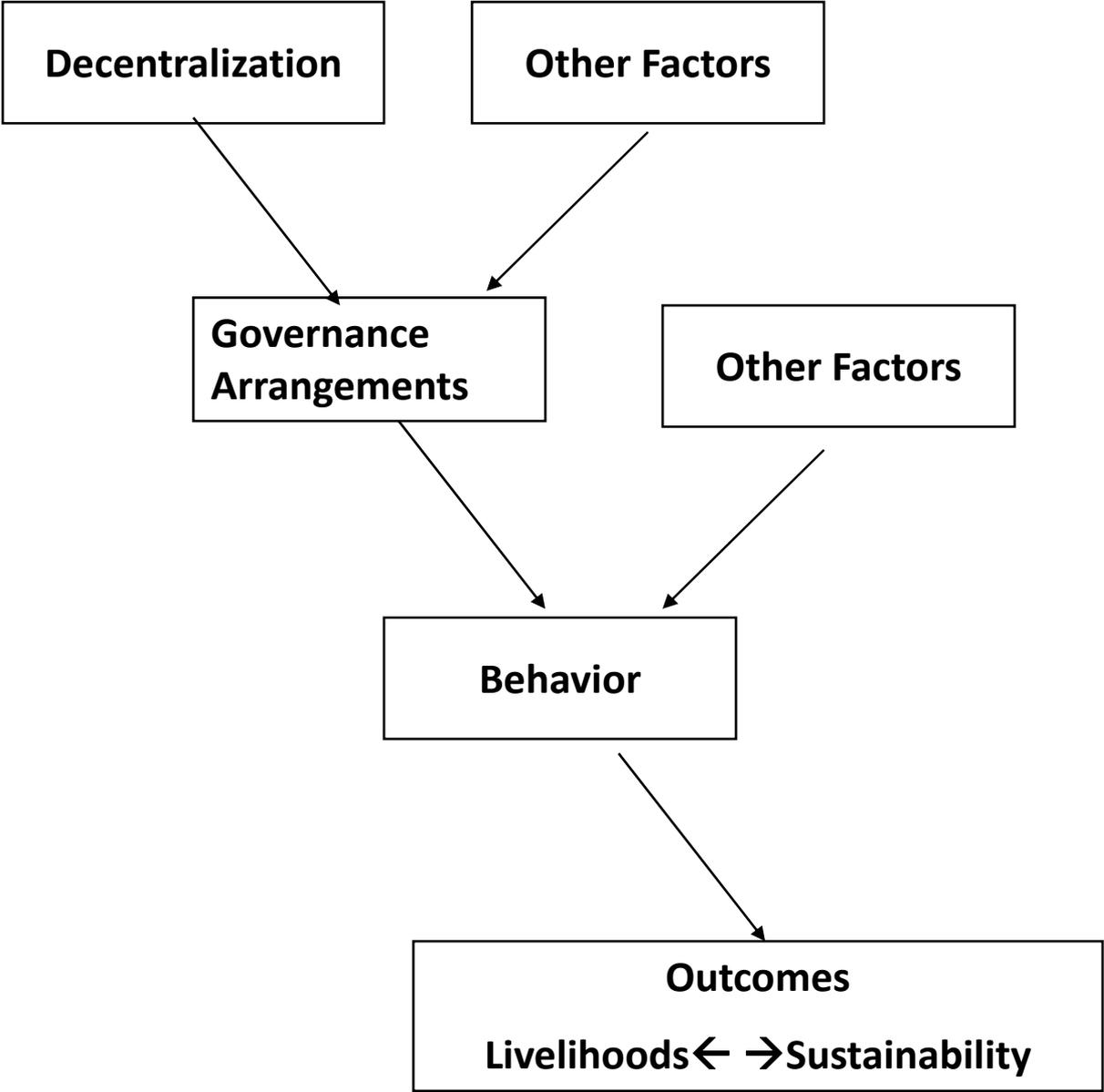


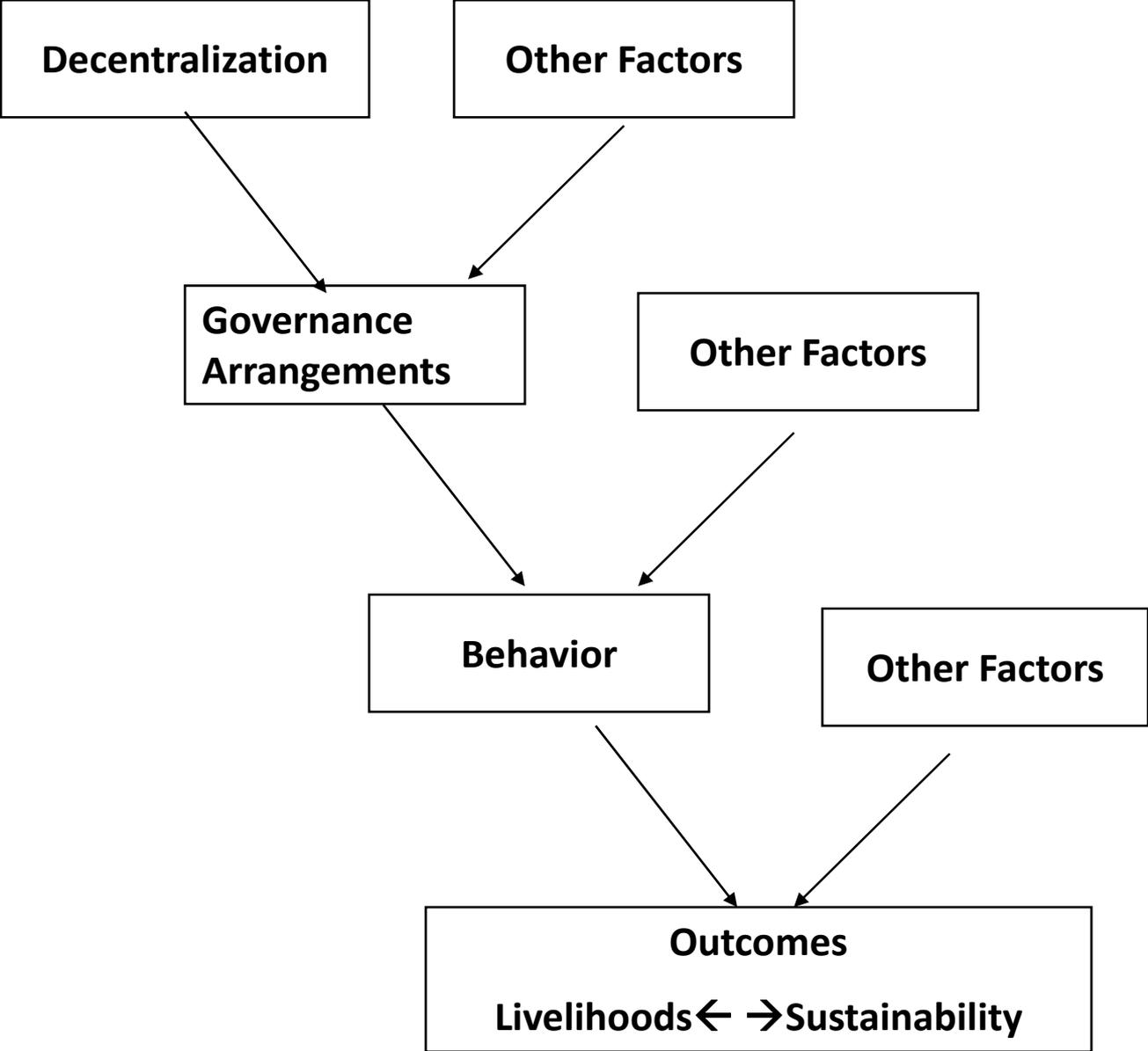
Behavior

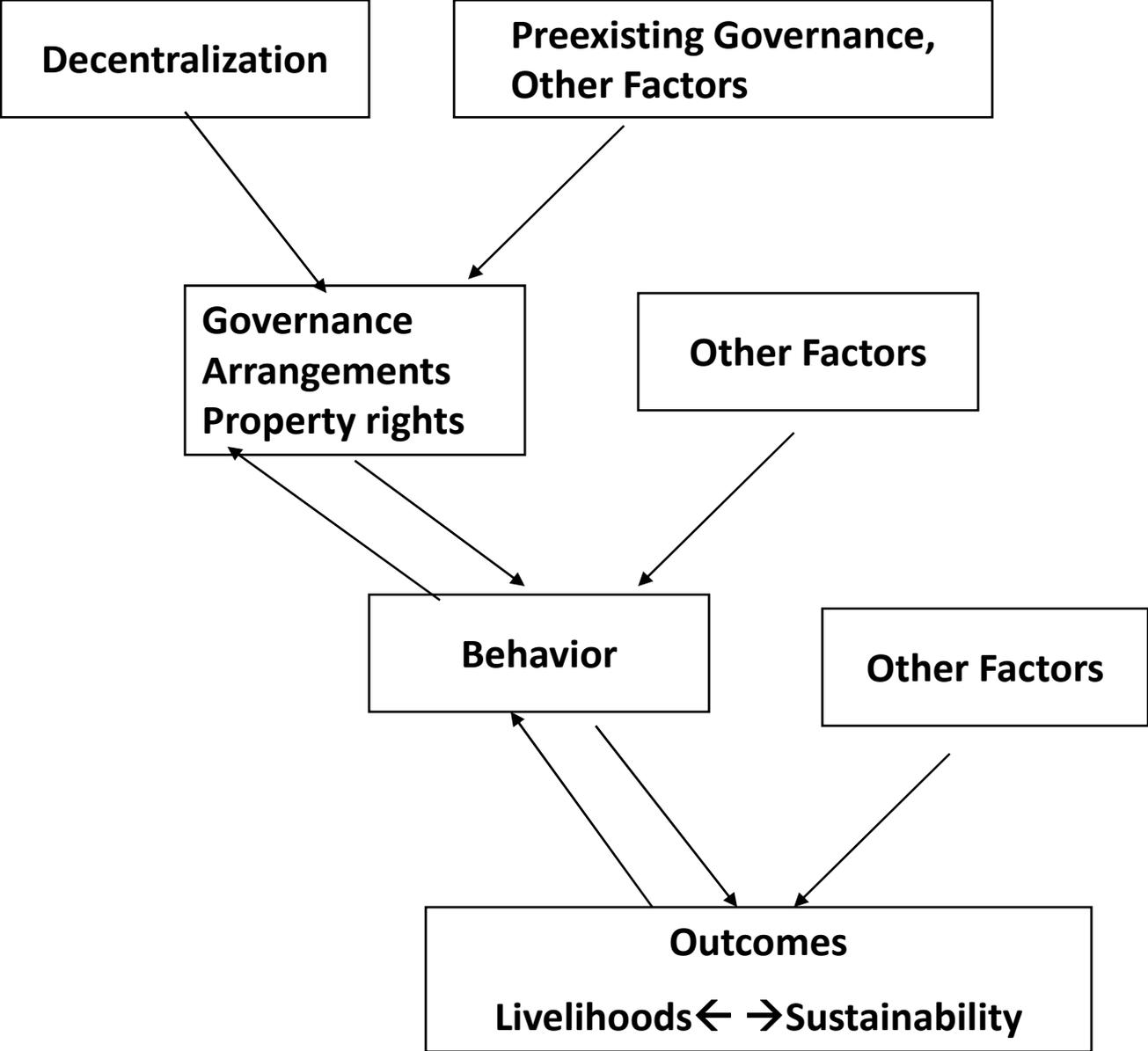


Outcomes
Livelihoods ← → Sustainability









Must We Unpack the Whole Figure?

- No, cannot always do that. Examples presented earlier today help us understand how to begin to use this framework without full unpacking
- Lets look at a few examples of successes and failures across & within countries – where it was the governance arrangements, property rights, & other factors that affected behavior & outcomes?
- Can look at some key differences identified in the framework
- First lets look at our analysis of legal structure in Bolivia and Mexico

Comparing Local Government Mandates and Attributes

Attributes	Bolivia	Mexico
Property Rights Regime	Government ownership, conditional usufruct rights to communities	Community ownership but with conditional management and alienation rights.
Targeted Actors	Municipal governments and indigenous territories	State governments, municipal governments
Length of term	4 years	3 years
Possibility of re-election?	Yes	No
Authority to create municipal regulations for resource use	Limited to zoning	Yes, since 2002, but must conform with state and federal rules
Authority to raise taxes and service fees for natural resources	No	Yes
Governance responsibilities in natural resource governance	Yes	Yes
Financial transfers for natural resource governance responsibilities	Yes	Yes

Source: Krister Andersson's elaboration based on national governments' legal documents as well as Nickson (1995) and Zaz Friz Burga (2001).

Some Results in Bolivia

- 1996 – Major Bolivian forestry reforms decentralized, but national government continued formal ownership
- Small holders have legal right to acquire formal rights, but the process for acquisition is an ordeal.
- By 2005, 10% of Bolivia's managed forests under control of rural smallholder & indigenous communities – other 90% government & private ownership
- Andersson found that municipalities linked to smaller villages & NGOs AND to larger government bureaus for technical assistance, among the few to adopt cogent & effective forest policies
- Pacheco found that international corporation were able to take advantage of indigenous communities unfamiliar with bargaining with commercial firms

Some Results in Mexico

- More than 1/3 total land area covered by forests – 8,000 communities live near forests
- Since 1910 agrarian communities have formal common-property rights
- Ejidos created in 1917 – property rights expanded in 1990's
- 60-80% of Mexican forested area is community *owned*
- National & state governments do have policies related to commercial sale from communal lands
- System that has evolved – more one of co-management even though communities have formal rights

Differences

- In Mexico the early property rights reforms were result of a revolution
- Over time, individual states and communities within them have acquired more authority – some pressure from World Bank but lots of bottom up demands
- In Bolivia, 1996 reform was top down & after much donor pressure and short-term funding
- Bolivian municipalities have limited powers
- When looking at rural people's formal rights to benefit from forest use, Bolivia & Mexico could hardly be more different even though some call both “decentralized”
- Existing governance arrangements and property rights do make a difference!

In Uganda

- Some National Forest Reserves were in long-term stable conditions before decentralization (and recentralization) policies adopted.
- UFRIC studies show a steady deterioration over time since 1999 Forest Section Umbrella Programme (a multi-donor program)
- In 1997 other decentralization programs attempted to “downsize” the public service
- In 2003 abolished centralized Forest Department
- Lets look at Jagger’s comparison

Forested Land under Different Categories of Ownership/Management, Percent

Forest Type	Pre 2003 Reform		Post 2003 Reform		
	Forest Department	Uganda Wildlife Authority	District Forest Service	National Forest Authority	Uganda Wildlife Authority
	(Central and Local forest reserves; private and customary land)	(National Parks and Game Reserves)	(Private and customary forest land; Local Forest Reserves) ^A	(Central Forest Reserves)	(National Parks and Game Reserves)
Tropical high forest	71.1	28.9	38.0	33.1	28.9
Woodland	88.3	11.6	78.0	10.3	11.6
Plantation	93.7	6.1	33.1	60.6	6.1
<i>Total</i>	<i>85.1</i>	<i>14.8</i>	<i>70.2</i>	<i>14.9</i>	<i>14.8</i>

A. Local Forest Reserves account for less than 1% of the total forest area of Uganda. Source: Adapted from MWLE (2001), data from National Biomass Survey, 1999.

Analysis of Over-Time Data

- Shows considerable forest loss in most former Forest Department forest areas
- Comparison of forest mensuration data also show steady decline in these forests
- In contrast, condition of Kapkwai Forest has *improved* greatly due to new rules established by Uganda Wildlife Authority
 - Communities access park on specified days of week
 - Collaborative resource management committee helps make harvest rules and monitors them

Can Reforms Ever Make a Positive Difference?

- YES!
- But not simple panaceas imposed by government and/or donors based on presumed “optimal” models
- What kind of policy analysis do we need?
- First, a respect for complexity and redundancy

The Challenge of Complexity

- *Biological Sciences* have accepted the study of complex, nested systems ranging from within a single organism, to a niche, to an ecological system, to a ecological zone, to the globe
- *Social Sciences* & public officials have tended to reject complexity rather than developing scientific language & theories to cope with it.
 - Simple policies are preferred
 - I learned what KISS meant when meet with development officials wanted simple solutions to complex problems

The Puzzle

- Many policy prescriptions tend to eliminate redundancy in governance structures
- Ecological, genetic, engineering studies that show functionalities of some kinds of redundancy
- Have we overlooked potential benefits of some kinds of redundancy in governance structures?

Redundancy in Engineering Systems

- Purposely built in to avoid severe loss
- Boeing 777 – has 150,000 distinct subsystems
- Without uncertainty in weather, routing, other traffic, turbulence – could probably get by with a few hundred subsystems
- Would you fly in such a non-redundant plane?

Redundancy in Ecological Systems

- Many ecological systems are loosely coupled semi-autonomous sub-systems
- Having multiple species perform similar functions in an ecosystem is a strength – not a weakness

Redundancy in Information Systems

- Reliability theory used in design of computers show the weakness of ordering all parts in a series
- One bulb goes out – everything goes
- A form of “administrative brinksmanship”
- Yet, top down control recommends pure hierarchy

Importance of Multiple Governance Layers

- Smaller scale units –
 - Can be matched to smaller-scale production or ecological systems
 - Can experiment with diverse policies
 - Can utilize local knowledge
- Larger scale units –
 - Can increase learning from experiments at lower levels
 - Can backstop smaller systems
 - Needed for large-scale problems
- Together form “polycentric systems”

Future Directions

- Need better analytical and diagnostic tools of complex, multi-tier, systems that need to adapt to change over time
- Ask core questions re existing governance structure, property rights, incentives, and behavior before making ANY reform recommendations
- SANREM helps us to build those tools

Thanks for Listening