

A Search for Management Approaches to Enhance Biodiversity and Quality of Governance in Protected Areas of Bangladesh

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Transition from Traditional Management Co-management (Community with Government Managers)



- Bangladesh is brdened with huge population where rural economy depends on forest resources after agriculture
- Deforestation rate is 0.3% in Bangladesh, however, both the biodiversity and local livelihood should be secured in the face of global climate change
- Stakeholder approach, broad-based community support management , Co-management has been introduced to reduce the pressure as well as to conserve the nature concertedly
- Operated by Co-management organization (CMO):Co-management Council and Co-management Committee (CMC), Peoples forum, Village Conservation Forum (VCF), Youth Club
- Operate Community Patrolling Group (CPG)
- Operate ecotourism and CMO gets 50% revenue back

Research Question



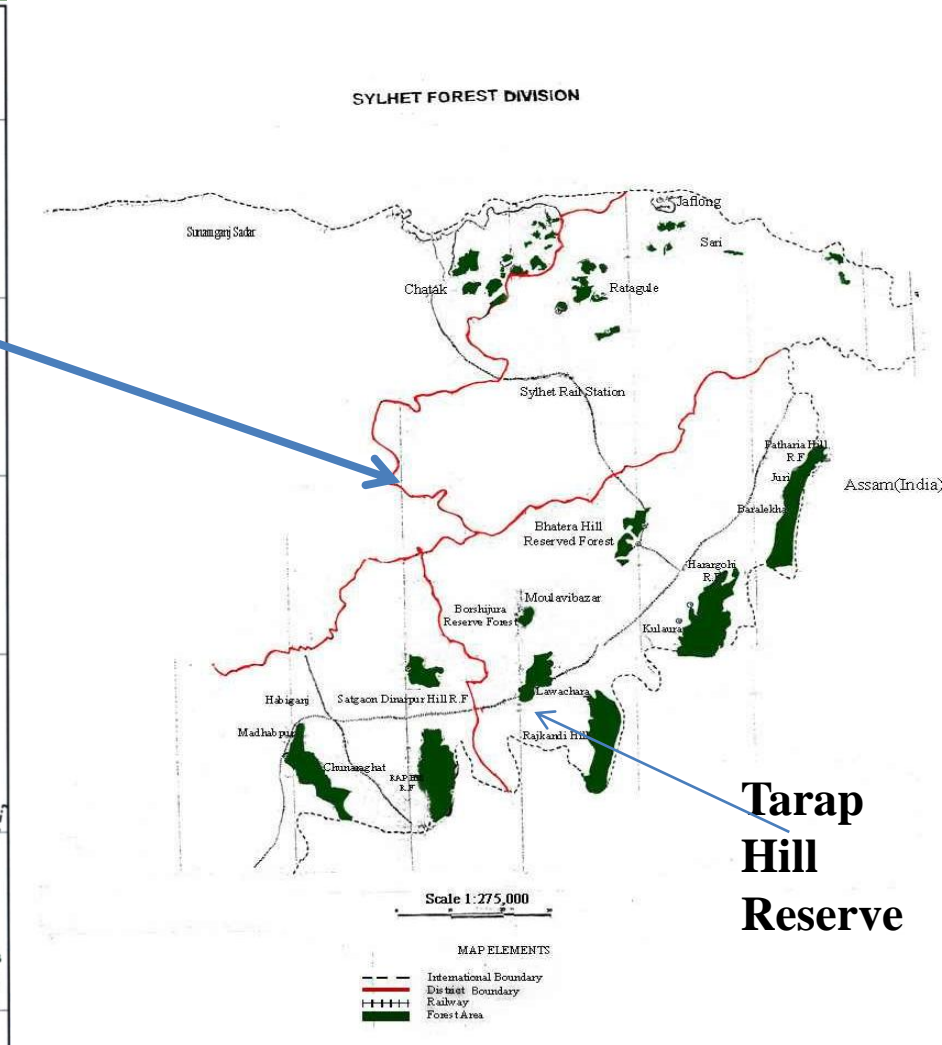
Based on the case study, this proposal would like to address the following reserach question:

Does institutional change in the form of decentralized forest management contribute to improved forest cover and socio-economic development?



Photo: Traditional to Participatory

Study Area



Tarap Hill Reserve

Source: Alam (2008) and BFD

Results Experienced from the Community based Governance over the Traditional

SANDEE



ECONOMICS & THE ENVIRONMENT

Attributes	Area with co-management	Area with traditional management
	Mean (Stand. dev.)	Mean (Stand. dev.)
Abundance	8.33 (3.68)	12.84 (9.91)
Richness	5.85 (2.27)	5.50 (2.88)
Basal Area (cm ²)	.64 (.39)	.48 (.40)
Canopy cover (%)	78.21 (21.90)	69.61 (21.66)
Disturbance	4.87 (1.59)	5.44 (2.24)
Stump removal	1.82 (2.72)	1.26 (1.68)
Regeneration	1681.12 (1375.98)	1089.12 (970.72)

Table 1: Descriptive statistics of ecological attributes in different management areas

Results Experienced

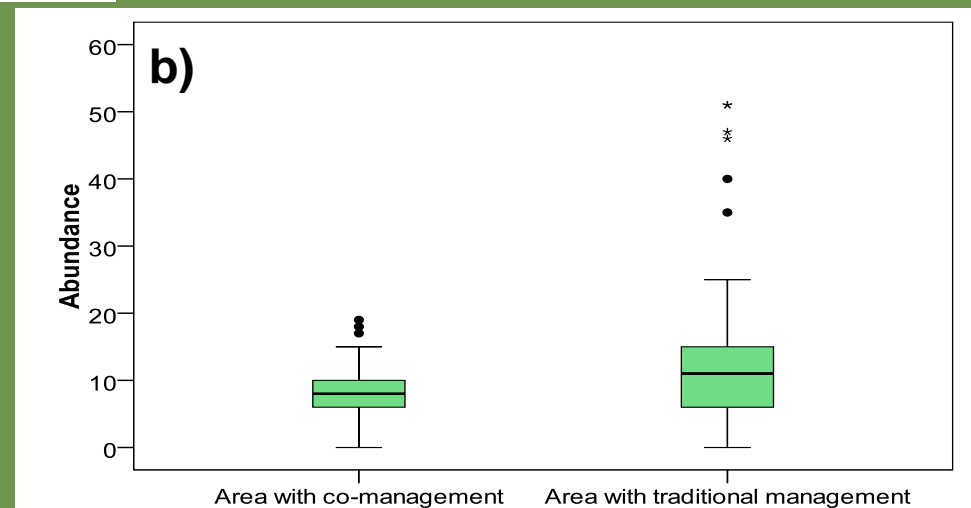
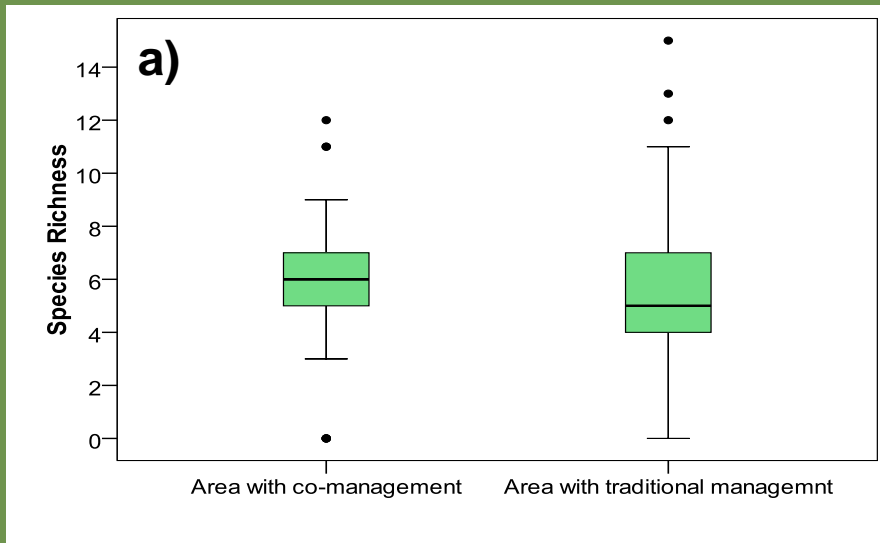
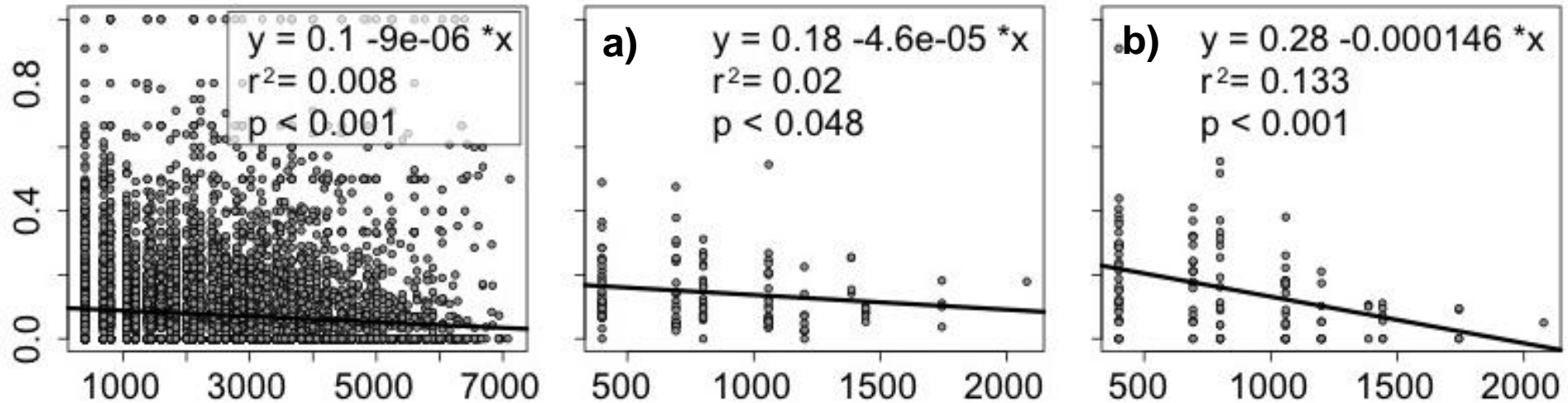


Figure 1: Comparison of a) species richness and b) abundance ($P < 0.05$)

Results Experienced



All plots

a) Area with co-management and b) traditional management

Figure 2: Distance decay (differential diversity): Heterogeneity test

Results Experienced

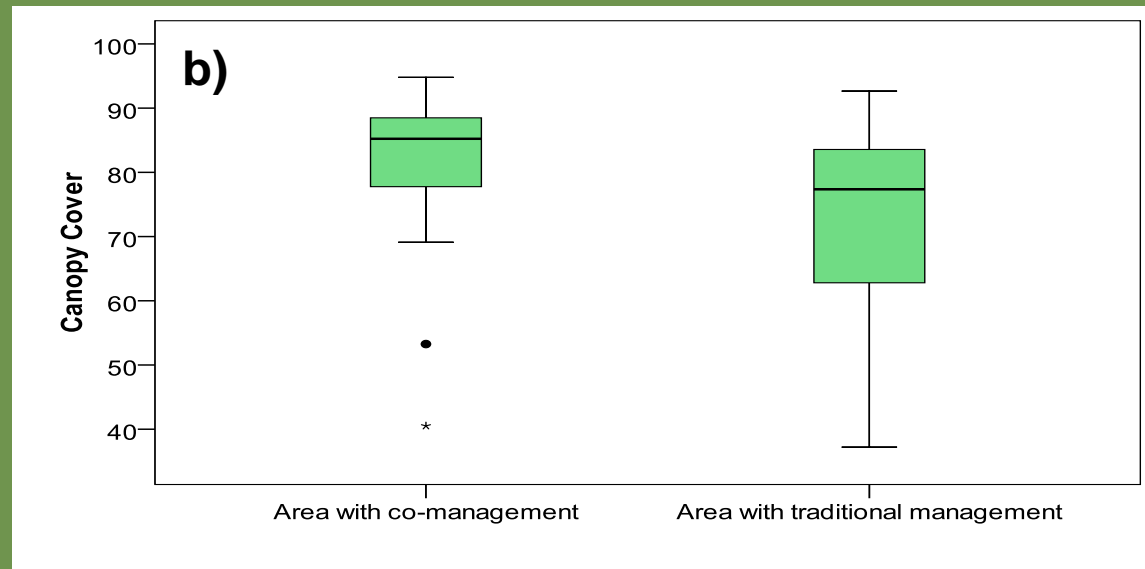
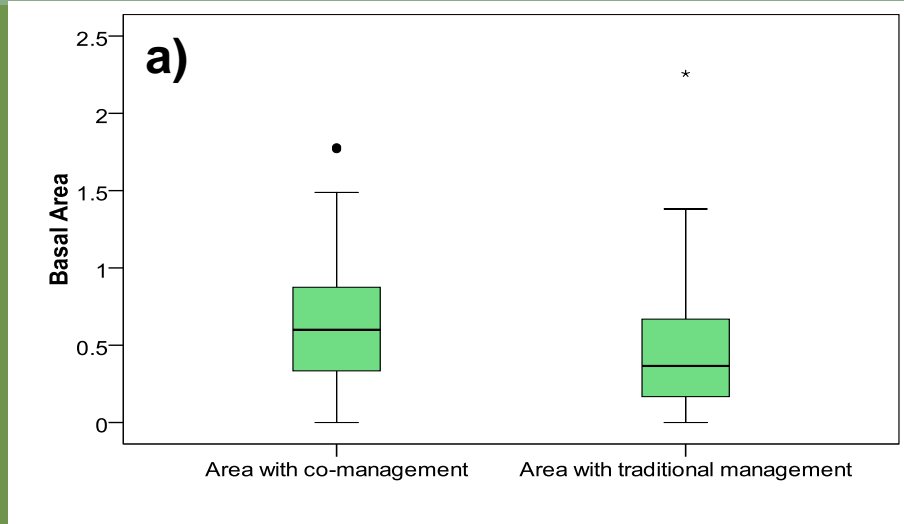


Figure 3: Comparison of a) basal area and b) canopy cover ($P < 0.01$)

Results Experienced

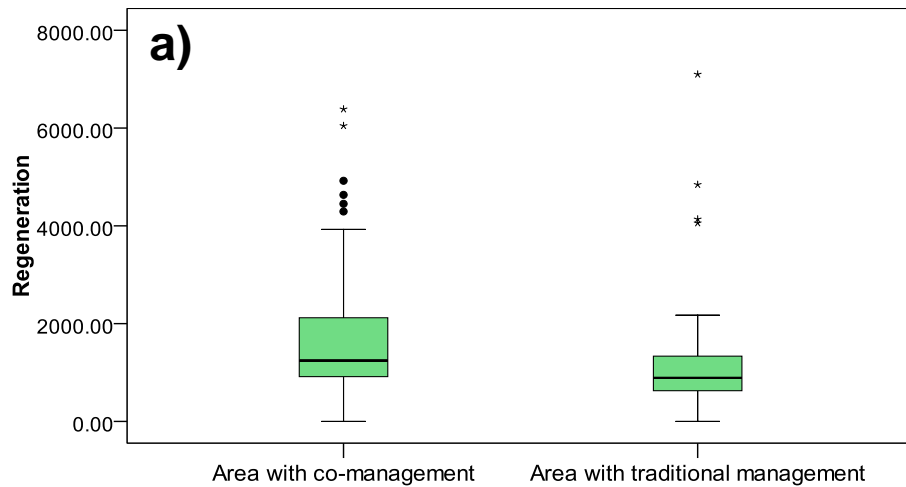
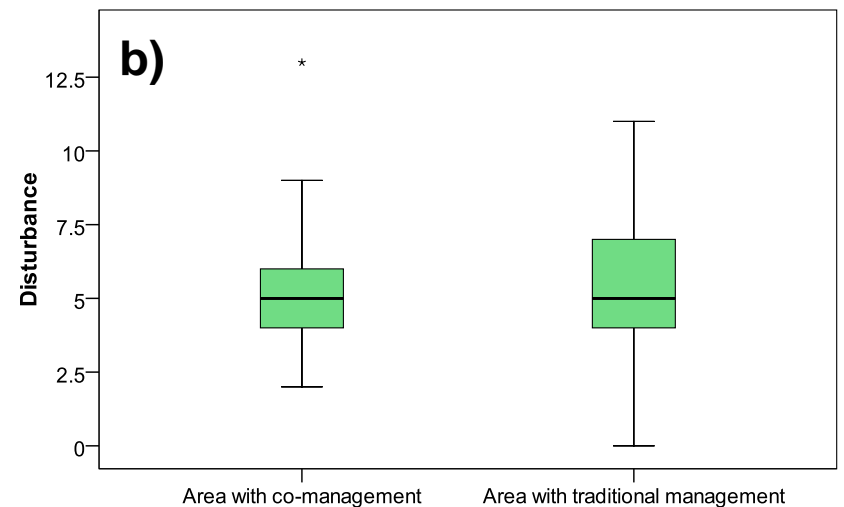


Figure 4: Comparison of a) no. of regeneration ($P < 0.05$) and b) no. of disturbances



Summary and Recommendations



- Management regimes have effects on ecological traits of forest health in the ecosystems
- Most of the measures of forest health quality were found significantly satisfactory in co-managed areas
- Community based management is the effective way to conserve our biodiversity and to secure our rural livelihoods
- However, community people need to be trained to maintain this community based governance



THANKS FOR YOUR ATTENTION