

Water, forests and people – building resilient landscapes

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CIFOR's current landscape research

Since 2008, CIFOR and multiple partners working on defining and refining broad “landscape approaches” building on previous initiatives.

Based on this on-going work, SBSTTA commissioned CIFOR to draft report “sustainable use of biodiversity at the landscape scale” (see <http://www.cbd.int/doc/meetings/sbstta/sbstta-15/official/sbstta-15-13-en.pdf>)



Systematic Review on Landscape Approaches:

***What are Landscape
Approaches and how
effectively have they
been implemented in the
tropics?***

<http://www.biomedcentral.com/content/pdf/2047-2382-4-2.pdf>

(Reed et al. 2015)



Systematic Reviews

- ***Transparent, repeatable, pre-determined*** methodology to review a given research topic
 - Commonly used in medical research
- Recently adopted by natural and social sciences (environmentalevidence.org)

Systematic reviews	Conventional reviews
A tool to provide comprehensive overview of all the available literature on a given subject	Inclusion/exclusion of studies based on author's discretions
Follows pre-set guidelines and checks throughout review process	Authors use parts of the evidence base for purpose of the review
Can be updated (by other researchers) when new evidence comes available	Usually not updated
Includes an active dissemination component beyond peer-reviewed publication, e.g. blog posts, policy briefs, etc.	Dissemination usually ends after publication of journal article

Objectives ➡ Outputs

Proposed

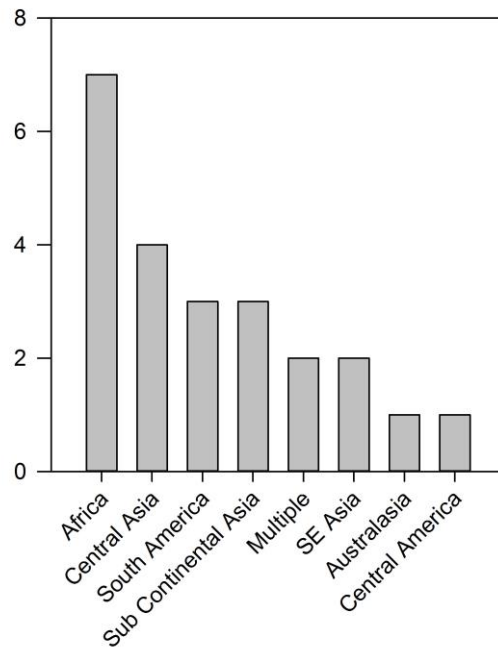
- Chart theory
- Untangle definitions
- Map implementations
- 1 final publication

Realized

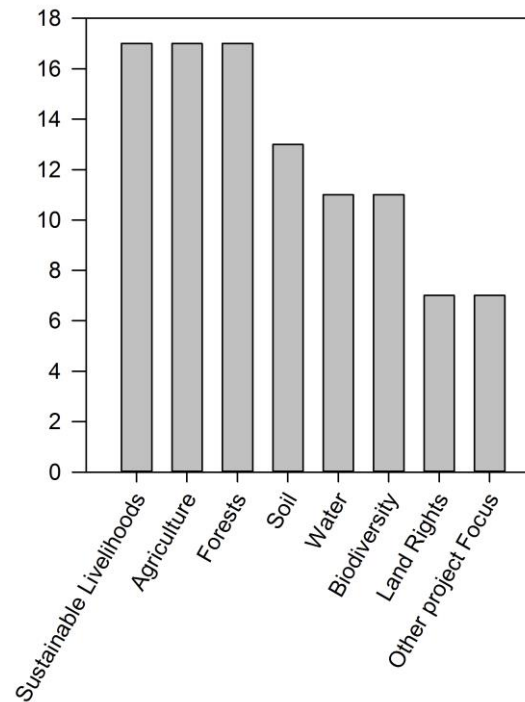
- Multiple questions
- Theory development distinct from implementation
- Case studies not widely reported in peer reviewed material
- Toolkit potential
- Further confusion surrounding definitions?
- Multiple outputs

Preliminary findings

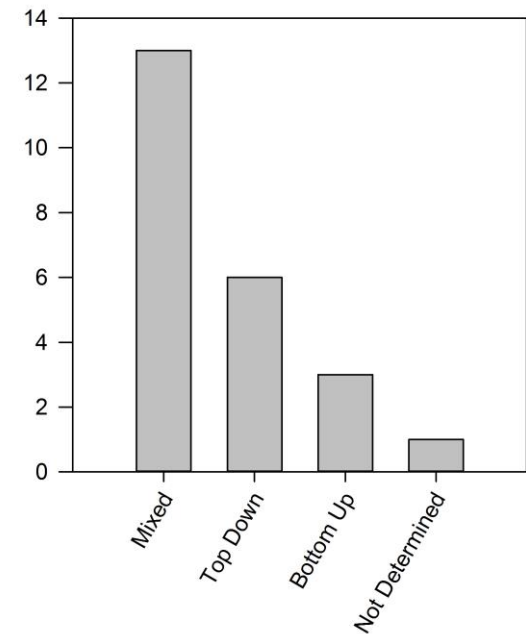
Geographic Distribution



Project Focus

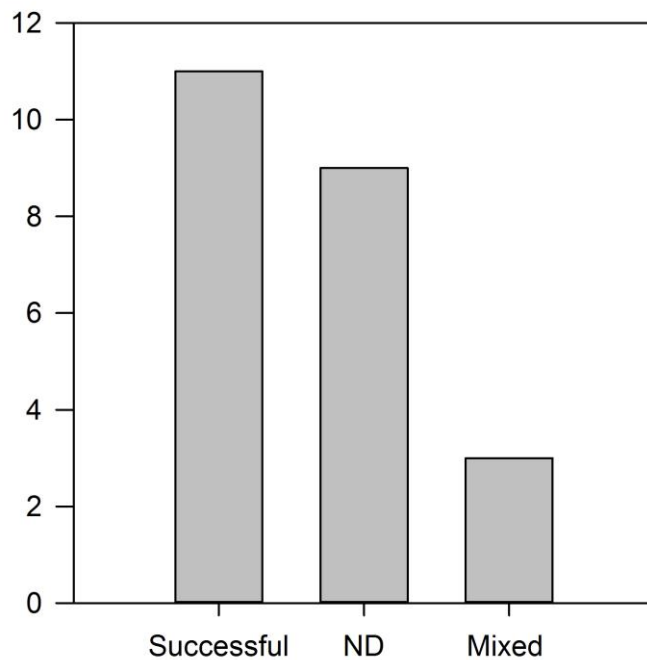


Governance System

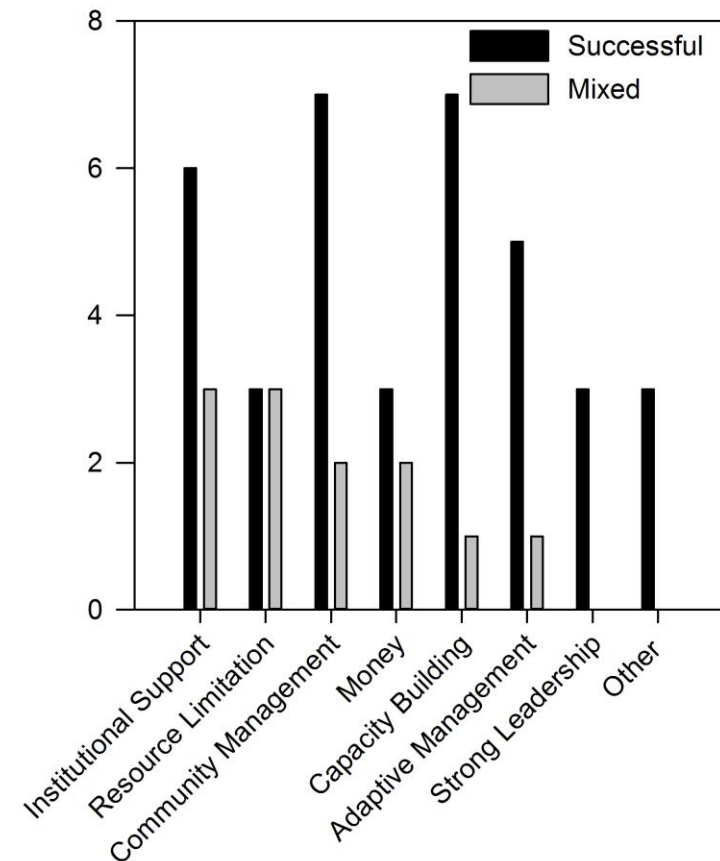


Preliminary findings

Implimentaion Success



Identified Factors



What about terminology?

- Ecoagriculture partners identified over 80 terms related to integrated landscape management.
- As scientists we considered that we may be stalling progress with our inability to provide a coherent message.
- We hoped to provide a concise definition.
- But.....

Terminology confusion:

We use the same words but we aren't speaking the same language



What do we mean by landscapes?



- Landscapes are fuzzy concepts – they are not planning units
- *“A geographical construct that includes not only the biophysical components of an area but also the social, political, institutional and cultural components of that system”*

What the literature tells us about water (and other land uses)

"Physiological and hydrological functioning of tropical forests depends on the conservation of intact natural forest or forest restoration"

"Effective management of water resources is essential in achieving sustainable development"

"Forest mgmt. will affect the quantity and quality of water moving through the catchment"

"Forests, water and people inextricably linked yet integrated solutions to management remain the exception rather than the norm"





But....there is hope

The Mekong River Commission

- one of the largest-scale and most complex examples of integrated transboundary forest and water management programmes.
- 795 000 km² in six riparian countries and over 60 million people.
- forest conservation plays a pivotal role in relation to biodiversity; water quality, availability, timing, use and monitoring; and individual and institutional capacity building.





Trifinio region tri-national watershed project

- 18,312 km² shared by El Salvador (56%), Guatemala (14%), and Honduras (30%)
- Anticipated population growth will exacerbate the problem of access to safe water.
- San Salvador relies on the Lempa River for 40% of its water needs.
- Watershed project has been running since turn of century with funding support from IDB, GIZ amongst others.
- Methods are being developed to facilitate land cover and the percolation of rainwater, which reduces the surface runoff that leads to erosion.



A little closer to home (for CIFOR!)



Gunung Halimun-Salak NP

<https://www.youtube.com/watch?v=uetUPdZB-tQ>



Challenges

- Large body of literature on “landscape approaches” and “ecosystem approaches” but little consensus on applicability or terminology
- General principles and guidelines have been largely missing
But see: Sayer et al. 2013. Ten principles for a landscape approach...
- However, need to avoid “one size fits all” approach
- Governance concerns, lack of empowerment given to rural communities
- Limited private sector investment
- Institutional barriers - government agencies still rooted in silos
- Lack of appropriate metrics
- Stop making assumptions, start acting...but how?!



Learn from what works



Carrots, sticks or both?



Trade-offs can occur at multiple scales

- It is commonly perceived that 'nesting' involves similar mechanisms at multiple scales....



But.....

- Mechanisms developed at global or national scales can have vastly different implications at regional or local scales



Forests in multi-sectorial LA



Thank you for your attention

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